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Universal Health Coverage

A systems thinking approach

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COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: _____ Date: _____

I wish to acknowledge the support and guidance provided by my two supervisors, Professor Di McIntyre and Associate Professor Tony Leiman.

Abstract

This dissertation uses a systems thinking approach to investigate how current health system frameworks conceive of universal coverage schemes and the conditions which led to their implementation and sustainability. After reviewing the conceptual literature and using three case studies; Cuba, Thailand and Rwanda – each of which have implemented universal health coverage policies – it establishes that consideration of the contextual factors – the political and economic factors that frame the health sector – is necessary to gain an understanding of health systems and the likely outcomes of their reform.

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INTRODUCTION

In 2005, the 58th session of the World Health Assembly at the World Health Organisation (WHO, 2005) adopted a resolution towards achieving universal health services coverage through health financing systems. In this conception, all people would have access to necessary promotive, preventive, curative and rehabilitative health services without risking financial catastrophe (Carrin et al, 2008) – an approach for advancing health equity which is central to the primary health care philosophy, enunciated in the 1978 Alma Ata Declaration.

Assessment of universal health coverage schemes have centred on the health system mechanisms needed to carry out the reform initiative – adequate revenue collection, pooling of financial resources to mitigate risk and purchasing of services. This assessment approach is informed by current health systems frameworks. Such frameworks provide consistent definitions of the health system and its components in order to generate a better understanding of how the components articulate to achieve health outcomes and how these can be strengthened to improve health system performance (Sheikh et al, 2011).

Despite the growing global movement for implementation of universal health coverage, there has been little assessment of what determines the successful implementation and maintenance of this reform initiative.

This dissertation will investigate how current health system frameworks are conceptualised; and the extent to which these conceptual frameworks incorporate all factors which influence how health systems function.

Using the universal health coverage initiative as an example of a policy directive, the dissertation will review those conditions which led to the implementation of universal health coverage, as well as the conditions which sustain them, through a detailed review of the experience of three countries: Cuba, Thailand and Rwanda.

By examining the different country experiences of implementing and managing universal health care this paper will also assess whether these frameworks capture all the determinants of how health systems function under universal coverage

Questions this paper aims to address are:

What are the characteristics of developing countries that claim to have successfully implemented universal health coverage policies? and

How have these systems been sustained?

These questions will provide a lens through which those factors important to health system functioning can be identified.

For each country under review, the aim is to critically assess the range of factors that influence health system outcomes. Without a full understanding of the determinants of health system success or failure, implementation of a successful system or reform of an unsuccessful one is doomed to fail.

Section 1 of this paper will introduce the universal health coverage initiative; *Section 2* will provide a detailed review of the conceptual literature on health systems frameworks; in *Section 3* the current health systems framework approach is challenged by the proposal of a new systems thinking approach – this section will include an overview of how this approach can be applied to the health

sector; *Section 4* articulates a framework for health system analysis based on a systems thinking approach while *Section 5* outlines the methodology which this paper has employed. *Section 6, 7 and 8* present and assess the three universal health coverage case studies in Cuba, Thailand and Rwanda respectively. The paper ends with a discussion in *Section 9*.

SECTION ONE: WHAT IS UNIVERSAL HEALTH COVERAGE?

1.1 The Policy

Universal health coverage is defined as “access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost” (WHO, 2005). Universal coverage embodies the principle of *health for all* and seeks to promote both equity in access to health services and financial risk protection.

Adopting a policy of implementing universal health coverage implies that the entire population is “covered” for needed health care services. However, this does neither necessitate the inclusion of a full range of health services in the benefits package, nor that the full cost of services is met by the government.

Providing universal coverage therefore presents policy-makers with a choice: to either provide a limited package of services to many or all people, or to provide a more comprehensive package of health care services to fewer people. McIntyre (2007) has described this situation as “an important trade-off between what are frequently referred to as the breadth (how many people) and depth (which services) of coverage” and notes that the scope of these two dimensions of universal health coverage is determined by the affordability and sustainability of the package (2007: 40).

The goal of any universal health care policy should not be to choose between these dimensions, but rather to extend these dimensions over time by providing a broader package of services to more people. To achieve this goal, a defined package of services may need prioritisation and preference for specific services based on affordability, and this may require cost sharing between the state and the public (Mathauer, 2009).

In the decade between the World Health Report 2000 – which provided a more liberal conception of health financing and cost recovery – and the World Health Report 2010 which is particularly considerate of providing financial risk protection for the vulnerable, universal health care coverage gained broad acceptance as a fundamental approach through which health systems should aim to provide health for all. This has resulted in increased attention on adoption of this policy imperative in countries across the world.

The challenge for health systems now is to identify *how* to achieve such universal coverage through appropriate health financing mechanisms that reduce the potential of catastrophic financial risk for its intended beneficiaries.

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1.2 Financing a universal health coverage policy

According to Kutzin (2001), health financing policy in support of universal health coverage should consider revenue collection, pooling and purchasing. It is the choices made in these aspects of health care financing that define the outcome of health financing reform in a country and will be discussed in further detail in Section Two. This view is supported by Carrin et al (2008) who further suggest that “it is the combination of institutional arrangements and legislation relating to revenue collection, pooling and purchasing/provision that determine how equitable and efficient a system is, rather than the name that is used to describe it”.

Building on this approach, the 2010 World Health Report identified three major financial barriers to achieving universal health coverage: the first is the availability of resources (WHO, 2010); the second is dependence on out-of-pocket, or direct, payments at the point of care; and the third is inefficient and inequitable use of resources (WHO, 2010). The Report notes that out-of-pocket payments prevent 1,3 billion people from accessing health services and force 100 million more into poverty annually (WHO, 2010).

To address these barriers, the Report makes a clear recommendation for financing universal health coverage by asserting that the path to universal coverage, then, is relatively simple – at least on paper. It suggests that all that is needed is for countries to “raise sufficient funds, reduce the reliance on direct payments to finance services, and improve efficiency and equity” (WHO, 2010: xi).

In order to achieve these goals and raise resources for health, the World Health Report suggests that governments should prioritize health in government budgets and increase the efficiency of revenue collection by improving the tax collection and health insurance contribution mechanisms (WHO, 2010). Beyond this, governments should also implement more innovative financing strategies, such

as increasing taxes on luxury goods. Yet, this suggestion comes with the caveat that “governments will need to implement those that best suit their economies and are likely to have political support” (WHO, 2010: xiii).

The last option for generating additional revenue for health care provision in low- and middle income countries is for high-income countries to provide development assistance. Many low-income, developing countries are unable to finance their health systems entirely through tax-based, or social health insurance, funding. For countries where increased revenue from domestic sources of financing is impossible, external assistance helps to finance universal coverage schemes (Carrin et al, 2008).

Before the onset of the global economic downturn in 2008, development assistance for health was increasing at a significant rate. Between 2000 and 2007, funding from external sources for low-income countries increased on average from 16.5% to 24.8% of total health expenditure (WHO, 2010). Often, during downturns, development assistance for health is insulated from the reductions in general donor assistance – however, current trends seem to indicate that donor countries are postponing or cancelling their pledges. Even key private players, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, have been affected and have had to put a hold on recent efforts.

Another issue for countries dependent on donor funding is the form the external contribution takes and how this aligns with the country’s health priorities. If it is programme or project funding, then the funds are dedicated to specific projects or areas. Sector-wide approaches pool funds from multiple donors to support the overall health sector, while general budget support provides funding for the Ministry of Finance who makes the final decision on how funds are distributed (McIntyre, 2007).

Without development assistance, universal coverage for many countries would not be attainable. Yet, as a source of financing, it remains unpredictable and more challenging to coordinate than domestic sources.

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1.3 Beyond financing

Yet beyond these health financing functions, implementation of universal coverage is also influenced by a range of other factors. At the micro-level, the implementation of health interventions can be affected by geographical, financial or social barriers to use or lack of demand; or even by a lack of equipment, medical supplies and infrastructure (Hanson et al, 2003). While not ignoring the importance of addressing these issues, this paper has opted to focus on those factors affecting policy, strategic management and the broader health system.

Therefore, at a more sector-wide level, examples of policy implementation constraints include weak systems for planning and management; lack of intersectoral action between government and civil society; lack of responsiveness to user needs; or reliance on donor funding (ibid.).

Implementation of policies, such as universal coverage, also requires governments to have the political will and capacity to affect sound stewardship of reform (Carrin et al, 2008). Implicit to this is that governments are able to enforce the rule of law and that decisions are not undermined by political instability and insecurity (Hanson et al, 2003). The strength of such commitment and the contextual characteristics which frame policy often impacts on the speed of implementation.

In most European nations that have achieved and maintained universal coverage, the transition took a century or more. However, it is impossible to say with any certainty how long any specific reform process will take, particularly because the determinants of effective transition to a universal health coverage system have still not been adequately documented.

1.4 The equity imperative

Considerable emphasis has been given to the equity implications of implementing universal health coverage. The transition process may involve the health system becoming more inequitable – giving preference to higher income groups in urban settings – before health service coverage is extended, in a trickle-down pattern, to poorer groups (Gwatkin & Ergo, 2011). The path to universal coverage may also mean that at some stage various pre-payment, or co-payment, schemes co-exist, which provide differentiated services for different population groups.

Albeit limited, there is empirical evidence which supports the prevalence of a trickle-down pattern in universal health coverage implementation approaches. For example, in Brazil “new health programmes initially reach those of higher socioeconomic status and only later affect the poor” (Victora, Vaughan, Barros, Silav, & Tomasi (2000) in Gwatkin & Ergo, 2011).

If this pattern of inequality persists or becomes entrenched as the norm, the effect would be to exacerbate rather than alleviate inequalities in health care access. This may not apply in all settings. In Cuba, for example, health services were provided to the poorest groups first. Approaches such as this can be termed “progressive universalism” (Gwatkin & Ergo, 2011: 2160). According to Gwatkin & Ergo (2011) “in the absence of a determination to include people who are poor from the beginning, drives for universal coverage are very likely, perhaps almost certain, to leave them behind” (2011: 2161).

1.5 In search of a more nuanced understanding of Universal Health Coverage

Several countries claim to have achieved universal health coverage. For the purpose of this thesis, Cuba, Rwanda and Thailand were selected as case studies on the basis that each claims to have achieved, or have come close to achieving, universal health coverage. For each of the selected countries, the health system will be defined by the depth of coverage, the benefit package provided and the level of prepayment involved in financing the universal coverage system: in other words, who is being covered; for what range of health care services; and by what means.

Although some may argue that such a description is sufficient in order to undertake a comparative analysis, it is important to review how others conceptualise the health system and the factors that influence health system reform.

SECTION TWO: HOW DO WE DEFINE A HEALTH SYSTEM?

The concept of a health system, rather than a health service, first emerged in the context of discussions on approaches towards implementing primary health care, a philosophy enunciated in the 1978 Alma Ata Declaration which embodies the principle of “health for all” (WHO, 1978) as a foundation for advancing equity. For many years, this approach underpinned discussions regarding how best to improve health outcomes for everyone. In the early 1990s, this dialogue became more nuanced, with increasing attention being paid to a wider range of strategies for achieving national health policy goals (Cassels, 2005). In particular, the importance of emphasising the need for health systems to be both effective and efficient in securing better health outcomes gained prominence in these discussions.

There was wide agreement that without the development of a clear and consistent definition of the health system and its components, it would be impossible to generate policies that would improve health system performance (Hsiao, 2003). Thus, in order to facilitate a better understanding of how some countries were able to meet their health care objectives while others failed, generic frameworks started to be formulated and propagated, thus allowing for different health systems to be analysed and compared, with respect to measuring the performance of health systems and their improvement over time.

One of the early health system conceptual frameworks was presented by Evans (1981) who deconstructed the health sector into four main actor groups – the population to be served; health care providers; third-party payers; and the government (Shakarishvili et al, 2010).

In consideration of financing of health systems across the world, Evans suggested that the one system found in most countries is based on direct, voluntary out-of-pocket payments. The other six

systems identified were all based on pre-payment mechanisms. Each of the systems identified was informed by a permutation of two variables: how health finance is collected from users; and how health care providers are reimbursed.

Users pay for their healthcare either through voluntary, private health insurance – with a choice in the insurer; through tax contributions; or through compulsory, public health insurance systems where they usually do not have a choice in the insurer (Hurst, 1991). Sometimes public health insurance systems are financed via general taxation, which satisfies the purpose of providing financial protection.

Health care providers can be paid through indirect payment of providers whereby patients pay the provider, but are reimbursed by the insurer (the reimbursement model); through direct payment - usually as fee-for-service or capitation (the contract model); or direct payment of providers by global health budgets (the integrated model) (Hurst, 1991).

Roemer (1991) defines the health system as “the combination of resources, organisation [of programmes], financing, and management that culminate in the delivery of health services to the population”. However, what this conception fails to explain is why variations in these components lead to variation in performance.

Hurst (1991) interpreted health systems in terms of “fund flows and payment methods between population groups and institutions” (Hsiao, 2003: 4). His research was limited to developed nations, primarily seven countries – Belgium, France, Germany, Ireland, the Netherlands, Spain and the United Kingdom – within the Organisation for Economic Cooperation and Development (OECD). However, his work is considered seminal within comparative studies of health care systems.

He identified six distinct health system objectives: a) that all citizens have equitable access to health care and that there be “equal treatment for equal need” within the public system; b) that users are protected from catastrophic spending; c) macroeconomic (or allocative) efficiency is applied so that an appropriate amount of the gross domestic product (GDP) is spent on health; d) microeconomic (or technical) efficiency whereby available resources are used to their maximum benefit; e) consumers should be free to choose their physicians; and f) health care providers should be given “the maximum freedom” compatible with the health system’s objectives (Hurst, 1991). These objectives can be broadly clustered into three categories “adequacy, equity and income protection”, “cost containment” and “efficiency” (Hurst, 1991).

On the basis of his conception of health systems, Hurst (1991) concluded that “many industrialised nations have found equitable ways of financing and delivering health care that achieve adequate outcomes (as far as they can be measured). The cost of most of this care is socialised throughout populations, with the rich supporting the poor, the healthy helping the sick, and the young subsidizing the old.” (Hurst, 1991: 1).

Another way of assessing health system performance is to take a functional approach. Londono & Frenk (1997), like Hurst (1991), looked at the relationships between the various components of the health system. They suggested that the health system be thought of as being comprised of financing, delivery, modulation and articulation. In this conception, financing refers to the collection of money from households, firms, the government and donors; the accumulation of this money in social insurance funds, public budgets for health or household savings; and the transfer of these funds through institutions in order to fund service provision (Londono & Frenk, 1997). Delivery involves the

combination of inputs into a process which produces outputs such as services which in turn yield health outcomes.

According to Londono & Frenk (1997), in addition to financing and delivery the health system should also include modulation and articulation. Modulation is a broader term for regulation and encompasses setting, implementing and monitoring the policies which govern the health system – this requires careful consideration of the various sector stakeholders. Articulation is the process which bridges financing and delivery and is a means of assuring that, and how, resources are channelled into health service provision. Examples of articulation processes include the enrolment of the population into health plans, the implementation of provider incentives, and the management of quality care (Londono & Frenk, 1997).

Their approach, applied to Latin America although relevant elsewhere, is unique in that it acknowledges that social and economic inequality affects the nature of health challenges in a region and that health systems therefore need to be structured in such a way that they respond to these heterogeneous needs (Londono & Frenk, 1997).

The challenges faced in many Latin American countries are akin to those experienced by many other developing and emerging economies. A history of underdevelopment led to accumulated infrastructure challenges while more recent economic growth has led to new objectives and policies which are sometimes incompatible with the available resources (Londono & Frenk, 1997). In addition to the cultural, political and economic history of each country which shapes its institutional make-up, modernisation, growth and development often fostered highly stratified economies with different challenges affecting different social groups and geographic areas. In no sector is this more apparent than in health.

In 2000, the World Health Organisation published the first comprehensive report on health systems in their member countries across the world, entitled *World Health Report – Health Systems: Improving Performance* (2000). The report presented an exhaustive account of health systems, health system functioning and countries' varying performance in achieving their health objectives. In this World Health Report, health systems are defined as all the organisations, institutions and resources that go into producing outcomes for improved health (WHO, 2000). The functions which the health system should encompass are "service provision, resource generation, financing and stewardship". The health system should strive for "good health, responsiveness to the expectations of the population and fairness of financial contribution" (WHO, 2000). The World Health Report on health systems provided a sound description of the various health system components. However what it did not do was to explain how a specific health system yields certain outcomes, or how the system components could be reformed in order to improve outcomes.

Hsiao (2003) responds to the shortcomings of the World Health Report by presenting an analytical framework which seeks to model how the health system's major components account for the resulting health outcomes. As a starting point, Hsiao identifies improving health, financial risk protection and public satisfaction as the primary health system goals. He then develops the framework through the addition of various "control knobs" or instruments which he proposes are able to facilitate attainment of health system goals: financing; the macro-organisation of health care delivery – the competition between providers, as well as decentralisation and integration of decision making; the incentive structure which determines how providers are paid; state regulation of the health sector; and a more abstract tool, persuasion – which Hsiao uses to refer to the means through which the public's expectations and preferences are affected by advertising, education and information (Hsiao, 2003).

Hsiao constrains his conception of a health system to include only those components which “can be utilised as policy instruments to alter outcomes” (Hsiao, 2003) thereby excluding contextual features.

Yet another set of frameworks considers the analysis of health sector *reform*.

According to Cassels (1995), health sector reform is “concerned with defining priorities, refining policies and reforming the institutions through which those policies are implemented” (1995: 3). His contribution to the literature was to look specifically at the implications of health sector reform in low income countries. Like Hurst, Cassels identifies access, allocative efficiency, technical efficiency, user choice and protection from catastrophic spending as being vital policy objectives for the health system. In addition to outlining these health system objectives, Cassels acknowledges that these objectives, as well as countries’ inability to meet them, are not new. Therefore, he begins to question what it is about the reform process that will lead to purposive, sustained and successful policies that achieve system objectives (Cassels, 1995).

Cassels emphasised the importance of understanding the *context* in which reform is going to take place. Implicitly alluding to Kingdon’s framework for agenda setting, Cassels suggests that the need for health system reform alone is not a sufficient precursor for reform to be implemented. Reform implementation needs a trigger, which is most often political or economic change, or shifts in the ideology around the role of government (Cassels, 1995). However, it is important to note that the existence of such triggers is not necessarily compatible with the development of an equitable or efficient health system – this would require strong governance, human resources and institutional

capacity (ibid). Cassels also makes brief mention of the need for stakeholder analysis of the different interest groups invested in the reform process.

The framework developed by Joseph Kutzin (2001) is even more specific, looking particularly at health system reform through a financing lens. Kutzin describes his framework as a tool “to assist national level policy analysis by facilitating the comprehensive description of a health care system and the identification of reform options” (2001: 173).

Kutzin (2001) identifies four generic health financing functions: revenue collection; pooling of funds; purchasing; and provision. Revenue collection relates to the sources of funds – whether external or domestic companies or households; the structure of payments – through prepayment in the form of tax contributions to general government revenue, prepayment through social health insurance, or out-of-pocket spending; and the collection agency (Kutzin, 2001).

Pooling of funds is the “accumulation of prepaid health care revenues on behalf of the population” (Kutzin, 2001). Through regular prepayment to a health care fund, members are insured against unexpected health care costs. Members’ contributions are pooled to create cross-subsidies whereby the healthy members are able to pay for health care for the ill. If the pool is extended across income groups, then cross-subsidies can also occur between rich and poor members (ibid.).

However, according to both Kutzin (2001) and McIntyre (2007), caution should be exercised in how pooled resources are allocated. If people make a contribution to health insurance then they are entitled to certain benefits. If access to different insurance pools entitles different groups to different benefits, then there is the potential to exacerbate inequality (Kutzin, 2001). Therefore,

resources should be distributed according to health care needs and need for financial risk protection (McIntyre, 2007).

Purchasing of services is the transfer of pooled funds to service providers on behalf of the population. It involves the choice of benefits to which members of a scheme are entitled – the type of service and type of provider. The benefit package available to those entitled to benefit should be determined in consideration of the affordability and sustainability of the services offered. The mechanism whereby providers are reimbursed is also important and has the potential to affect efficiency and cost (McIntyre, 2007). The nature of the purchasing organisation is also relevant.

In summary, health systems have been conceptualised and defined in a multitude of ways leading to inconsistencies in the components which are analysed and compared. Yet despite these variations the common thesis that all of these frameworks purport is that most countries share similar health policy objectives; and that there are intrinsic components which are similar in all health systems which make them comparable.

Despite the proliferation of tools for analysing health systems, there is still a very limited analytical understanding of why policies aimed at improving health system performance do or do not have their intended outcomes.

Atun & Menabde (2008) suggest that one explanation for the inability of the current frameworks to adequately describe the complexities of the health system is that the tools used are too simple. “A better understanding of health systems and how health system elements interact to produce results requires a more nuanced understanding of systems behaviour” (Atun & Menabde, 2008: 127) – one which utilises a systems thinking approach.

SECTION THREE: A SYSTEMS THINKING APPROACH

The systems thinking approach informs the broader field of health policy and systems research. Originally applied to projects related to specific interventions such as tobacco control and obesity, recently, this approach has gained traction in the international health policy research arena, and is also applied to other sectors.

Systems thinking originated in disciplines such as engineering, biology, and psychology. It proposes that a system should be conceived of being comprised of interconnected components that are significantly influenced by changes within and around this system (Atun & Menabde, 2008). The approach also advises that systems be considered as dynamic – evolving over time – and not just as static frameworks (ibid.).

“Systems thinking is an approach to problem solving that views “problems” as part of a wide, dynamic system. Systems thinking involves much more than a reaction to present outcomes or events. It demands a deeper understanding of the linkages, relationships, interactions and behaviours among the elements that characterize the entire system” (de Savigny & Adam, 2009: 33). This approach not only allows for better evaluation of the health systems components as they relate to one another, but also for better evaluation of the health system components as they relate to the broader health system and of the health system as it relates to the context in which it exists.

Systems thinking as an approach within health systems research is relatively new. This Section will outline the relevance of a systems thinking approach for health systems and will then present the framework to be used as an assessment tool in this paper. This framework is not intended as a stand-alone tool but rather as gauge upon which to measure the comprehensiveness and usefulness of a systems thinking approach.

3.1 The potential for applying a systems thinking approach to health

Health systems display the characteristics of dynamic systems: the effects of interventions or changes are challenging to predict and are not immediate; it is also challenging to connect specific effects to specific causes (Atun & Menabde, 2008). It can be understood that this indeterminant causality can be attributed to the interdependence between health systems and the contexts in which they exist.

If a systems thinking approach is to be effective in creating an understanding of how an intervention or reform will play out in the real world, then it seems important to recognise the influence which “the world” or factors external to the health system framework components have on the health system.

Much like the development of a platform which considers the social determinants for health when addressing health outcomes, a true systems thinking approach should consider the social determinants for health system performance.

Health policy formulation and its related field of research have adopted a systems thinking approach in recognition that “policies are ...embedded in social and political reality and shaped by particular, culturally determined ways of framing problems and solutions” (ibid). Health policy is a collective term for the guidelines to inform decisions on actions needed to strengthen health systems; the processes of decision-making; and the wider influences on both decisions and their processes (Sheikh, 2011).

Health systems have been defined through frameworks – such as the popular WHO building blocks approach - the elements of which interact in order to achieve health outcomes. Thus conventional health systems' frameworks provide a description of the "hardware" needed to implement health policy directives. While such frameworks often give consideration to issues of "governance", they rarely give recognition to those factors which define the environment in which policies are implemented and exist.

Those health systems' frameworks which focus attention on the articulating elements of a health system – the "hardware"- thus miss the opportunity afforded by a systems thinking approach to incorporate aspects of the broader political and economic context. What a systems thinking approach offers is the opportunity to deliberately map the dynamics present in and around the health system in order to better understand the implications of an intervention or reform plan (de Savigny & Adam, 2009).

Applying such an approach should allow analysis not only of what works, with which hardware, but also for whom and under what circumstances (ibid).

This dissertation therefore proposes that health systems frameworks incorporate a systems thinking approach which allows consideration of this context.

The conventional health system frameworks tend to suggest that such a description of the components of the system is sufficient in order to undertake a comparative analysis. However, this paper, in adopting a systems thinking approach will supplement the descriptive analysis with an evaluation of the structural context which frames the main health system components.

The following section will outline and develop a systems thinking approach in order to incorporate the structural and contextual factors which frame the health system within the popular descriptive health system frameworks discussed in Section Two. By prescribing to a systems thinking approach this paper will assess the performance of universal coverage in Cuba, Thailand and Rwanda.

SECTION FOUR: A SYSTEMS THINKING APPROACH FOR HEALTH SYSTEMS ANALYSIS

There is an extensive literature identifying the health system components that can be used to assess the performance of a health system. This thesis challenges the notion that these components alone allow for adequate comparison between health systems – particularly in terms of implementation, functionality and sustainability.

Therefore, the approach proposed here will expand on the traditional health system framework to include consideration of the economic and political context. It will be used as the basis for critically assessing the health systems in the three country case studies.

The first step is to identify and describe the components of the health system. Drawing on the various conceptions of a health system as discussed previously, this paper has selected those components which are common to the models to form a descriptive framework.

The core descriptors of this health system framework are:

- how health financing is collected and from whom;
- how these resources are pooled in order to generate cross-subsidies;
- how providers are reimbursed; and
- which services are provided

The second step is to assess each health system according to a systems thinking approach which includes a process evaluation, a context evaluation and an effects evaluation (de Savigny & Adam, 2009: 60).

Process evaluation includes consideration of policy formulation, stakeholder acceptance and priority setting in terms of governance. This component of the system thinking approach focuses on how universal coverage was introduced and implemented and therefore draws on policy analysis for its assessment criteria.

An integral part of policy analysis, and one that is congruent with systems thinking, is to move beyond classification of the health system purely in terms of its functional or instrumental components. In so doing, health policy and systems research promotes recognition of the interests, values, relationships and power relations between the main actors (Sheikh et al, 2011). This inclusion provides better insight into how reforms or interventions were initiated, health system performance, as well as the key factors determining implementation of universal coverage and sustainability.

Context evaluation helps to determine whether the positive or negative effects associated with a reform are the result of the intervention or of the structural context of the system (Atun & Menabde, 2008). In order to make this distinction, external factors have to either be ruled out as determinants or given recognition for their role. Since, the health system is embedded in a social, economic and political context, these influences cannot be ignored. Therefore, this approach includes the political dynamics in the country as well as the level of economic development and growth.

Effects evaluation considers the changes in health indicators such as morbidity and mortality and changes in the use of services. Due to the complex and highly sensitive nature of the health system, it is challenging to identify a direct causal relationship between changes in health outcomes and an intervention. However, all else being equal, the health outcome data does provide measurable

evidence of the effect of an intervention. Health service utilisation data provide a more immediate reflection of the effect of a policy change.

The effects evaluation also looks at the effect of universal health coverage on human resources for health. One of the most influential constraints on the implementation of health reform policies is the availability of appropriately skilled staff. Most often included as a variable in assessing policy implementation at a service delivery level, this paper will depart from this tradition and include assessment of human resources changes as an outcome of policy reform. This is justified by the fact that the availability of human resources, and the manner in which the health workforce responds to the reform, has interesting implications for the sustainability of universal coverage which are not often discussed.

An adequate health services workforce – one that is responsive, efficient, comprised of sufficient staff and fairly distributed – is vital for providing good quality and equitable health services. Health systems would be defunct without the people that make them work. Yet, human resources are not merely a resource, people have the ability to act strategically and alter or influence health system objectives (Rigoli & Dussault, 2003). The health workforce affects the quality of service and the cost of providing care, and the deployment and distribution of the workforce affects equitable access to care (ibid.)

For interventions with more limited effects, ideally, the last element of a systems thinking approach would be an *economic evaluation*. This would be conducted separately and would include a full cost-effectiveness analysis. However, given the scope of the effects of the reforms dealt with in this paper, the economic evaluation will be limited to a discussion of the relative cost of reform; the sustainability of financing; as well as the efficiency of the system where possible.

SECTION FIVE: METHODOLOGY

This is a desk-based study that utilised pre-existing literature and data to bring together conceptualisation of health systems and systems thinking approaches of analysis in order to apply this to the case of universal health coverage in three countries.

The review is based on an electronic database search of academic papers. An extensive list of health and economics bibliographic databases was searched (EconLit, ScienceDirect, Emerald, PubMed and ISI Web of Knowledge) using a combination of search terms (e.g. “health systems”; “health systems approaches”; “systems thinking AND health”) over a six month period from August 2011 to January 2012. This search was supplemented by a search of websites relevant to health systems such as those of the World Health Organisation (WHO), World Bank and the Alliance for Health Policy and Systems Research.

Cuba, Rwanda and Thailand were selected as case studies for three reasons. Firstly, they are all developing countries at different stages of economic growth. Understanding the implementation of universal coverage in economies with more limited financial resources and potentially a greater need from the population for financial risk protection is important if universal coverage is being touted as a development solution and imperative. Secondly, universal access policies were implemented at different times and under very different circumstances which allows different determinants to be tested for their influence over implementation and maintenance. Thirdly, they are all located in different regions of the world – and within each region, these cases are held up as exemplars of successful health systems. Country specific information was collected through electronic database searches of academic papers, general internet and University of Cape Town library collection searches.

5.1 Limitations and Exclusions

The primary limitation of a desk-based study is that it is reliant on the availability of existing research. Seminal works from Evans (1981), Hurst (1991), Roemer (1991), Londono & Frenk (1997), Hsiao (2003), Cassels (1995) and Kutzin (2001) assisted in mapping a strong tradition of health systems' conceptualisations. Yet, none of their systems frameworks were able to contribute adequately to a better understanding of with what success health systems reforms are implemented and how, if at all, they are sustained.

Therefore, alternative approaches had to be identified. After extensive searches, very little could be found in the strict health systems literature. Expanding the search yielded a paper by Atun & Menabde (2008) which appears to have been the first to apply a systems thinking approach to the health sector – albeit on a more limited interventions basis. Back searching from this point provided a comprehensive enough systems thinking theory which could then be synthesised with a standard health systems framework. In order to narrow the scope of this framework and analysis tool, the factors included in standard health system frameworks had to be condensed. This was done with the understanding that it was the new, contextual factors, such as politics and economics, introduced by systems thinking that would provide alternative insight into the functioning of health systems in reality.

The description and analysis of each country was limited by the available information. In the case of Cuba, economic information – particularly related to government revenue sources - was limited. Similarly, in Rwanda, the universal health policy is very recent and the country does not have a long tradition of research and data cataloguing. It appears that country-specific research publications are clustered around certain time periods, presumably times of political and economic flux or at the point at which health reforms occurred. Therefore, consistent reporting is consequently rare. Papers

published more recently were given priority but government publications – where possible – were the primary source of information on expenditure and budgets. Papers addressing regional health outcomes or processes were excluded.

National facts and statistics were – where possible – triangulated to determine validity. Where minor inconsistencies have emerged in the data an ad hoc process of determining reliability has been employed; this considered the qualifications of the author and the number of citations attributable to the source.

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SECTION SIX: CUBA

Since 1959, after the revolutionary victory over the Batista regime, the Cuban government has prioritised the health care system, in the belief that health care is an inalienable human right. The goal was “to guarantee every individual’s ‘right’ to health care regardless of race or ethnicity, through the public provision of comprehensive, free care in all regions of the country and public health campaigns to reduce the threat of disease” (OAS, 1983 in Ullman, 2005: 7). With a rights-based conception of health care provision, which forms the primary tenet of national health policy, it is no surprise that Cuba offers one of the most extensive universal health coverage packages.

6.1 The System

6.1.1 Universal Health Coverage

Since 1960, Cuba has pursued universal health coverage. While almost all healthcare services are provided free of charge to all, at the expense of the state, a few additional medical expenses are paid out of pocket by users. With 100% coverage of almost all health care services, Cuba has become the exemplar for both public health financing and universal coverage.

6.1.2 Overview of the health system prior to universal health care

Prior to the 1959 Revolution, the Cuban health system was characterised by a segmented financing framework with both private and public financing and provision of care. A social security system, originating in 1902, provided coverage which included workmen's compensation and maternity care (Ullman, 2005). Members of the military and their dependents had their own health care plan financed by the state (Kirk & Erisman, 2009).

There was also prepaid medical coverage in the form of Mutualist Health Associations. These schemes were dominant from the 1930s and by 1958, there were over 100 mutual aid clinics operating in Havana and Santiago de Cuba, with nearly one half of the Cuban population as members (Sixto, 2002). Members paid 2 to 5 pesos a month to receive health care from a non-profit provider. The government partially subsidised those unable to afford membership fees (Ullman, 2005).

Cuban doctors were reimbursed on a fee-for-service basis conditional upon the number of patients treated and services provided (Kirk & Erisman, 2009).

Even prior to the implementation of free health care in the 1960s, a significant proportion of the population was covered by a health care plan of some kind (Ullman, 2005). Although it would be unfair to suggest that pre-revolutionary healthcare in Cuba had been substandard, there was a wide disparity between developed and underdeveloped, rich and poor, and particularly rural and urban areas. This resulted in inequitable access to health care in terms of both geography and quality (Kirk & Erisman, 2009).

Ideologically, provision of health care was not viewed as being a state mandate and there were no official public health policies (Ullman, 2005).

6.1.3 Overview of the health system under universal health care

The 1959 Revolution radically altered the inequities in health care access. Article 49 of the Cuban Constitution states that, “Everyone has the right to the care and protection of their health. The State guarantees this right: by offering free hospital and medical services...by offering free dental treatment; by developing plans for sanitary efforts, health education, periodic medical examinations, general vaccinations, and other preventative medical means” (cited in Kirk & Erisman, 2009: 30-31).

Under Castro, the Cuban Ministry of Public Health (MINSAP) assumed a central role in the organisation, implementation and regulation of the health system. Instead of relying on the market to determine distribution of resources, the state had the authority to decide which services to provide and in what quantity; how services would be delivered and in which areas; and played a decisive role in planning how health services would be developed and improved in the long run (Ullman, 2005).

Initially, the Ministry’s role was just to oversee the three financing arms of the health system: public, mutualist (the pre-paid health care system), and private. However, private services and financing were nationalized fairly rapidly. By 1961, only two years into the new regime, pharmaceutical companies, private hospitals and mutualist organisations had been incorporated into the public system (Sixto, 2002).

The Public Health Law (1983) specified three levels of health provision: At the national level the Ministry of Public Health had responsibility for collecting information and co-ordinating medical,

pharmaceutical and biotechnological research. At provincial level, the Provincial Administrative Council was in charge of hospitals, monitoring epidemiological trends and specialty training of nurses working in blood banks. At the municipal level, a local council – elected by their communities – ensured that the community received adequate care through health services responsive to their needs (Ullman, 2005). Representatives from all three levels were involved in planning.

In 1963, to improve access, many existing healthcare centres were consolidated into *polyclinics* – primary healthcare units, which were also monitored by the municipal councils. These formed the basis of a community health programme and, despite having an emphasis on curative rather than preventative care, advocated for immunisations, blood drives and environmental improvements (Ullman, 2005). By 1974, paediatric, maternal and internal medicine services were also provided by the polyclinics (*ibid.*).

Residents within a certain area all received care from the same polyclinic and the same physician, with the intention of fostering a better understanding of the patients' needs and area-specific concerns (Sixto, 2002). However, quality of services in the polyclinics was poor and patient utilisation was very high. This resulted in overworked staff and an undersupply of medical equipment and supplies (Ullman, 2005).

To address the challenges faced in provision of primary care, the Ministry implemented the Family Doctor programme in 1984 which placed a nurse and a doctor in every neighbourhood. The physician and nurse teams were given a home in the community and provided with a fully equipped clinic. These *consultorios*, the primary health care units, continue to provide care for about 120 households, but numbers vary according to population density. They are responsible not only for diagnosis and treatment but also for health promotion (Spiegel & Yassi, 2004).

Consultorios report to the nearest polyclinic from where patients are referred to a hospital if necessary. This vertical integration of the health system succeeded in alleviating the use of hospitals and emergency rooms, thereby reducing costs (Spiegel & Yassi, 2004). This programme also fulfilled the original preventative medicine mandate for the community health programme with significant improvement in health outcomes.

While almost all healthcare services are provided free of charge, a few additional medical expenses, such as pharmaceutical drugs (although these are heavily subsidised), hearing, dental and orthopaedic procedures, wheelchairs, crutches, prescription lenses and other medical equipment are paid for out-of-pocket (Sixto, 2002). It has been suggested that low-income groups are exempt from these costs as well, but there is no evidence to show on what basis people are characterised as low-income (Spiegel & Yassi, 2004).

Funding for the health system is provided by the State. Data regarding the composition of public revenue is scant and inconsistent, but it can be assumed that it is attributable to direct and indirect taxes, foreign investment, loans and aid. Income tax in Cuba is progressive with the highest income bracket, earning over CUP 50,000 paying 50% of their income. Those earning less than CUP 2,500 are exempt.

The fact that the health system is almost entirely funded by government revenue means that risk pooling takes place automatically.

Human Resources for Health

Providing free health care for all, within a socialist context, meant that by necessity, health care had to be provided by a workforce who sincerely believe that it is their duty to provide care to those in need and that their labours should not be motivated by profit (Kirk & Erisman, 2009). Since 1959, being a doctor in Cuba has been perceived as a privilege and medical students are taught to view their practice as a selfless vocation (ibid.).

Just before Castro came into power, there were 6,600 doctors practising in Cuba, primarily concentrated in urban areas (Ullman, 2005). In 1958, the physician to patient ratio in Cuba was 92 per 100,000: the ratio in Havana was 238 per 100,000 while in the rural province of Oriente it was just 40 per 100,000 (ibid.).

Graduates of the single medical school in Cuba were compelled to work for a state or provincial facility, but also had the option of private practice. The urban concentration of doctors, together with mutual health insurance, resulted in a two-tier system: in the cities, quality services, physicians and hospital care were available to those who could pay for private health care, while those in rural areas were underserved (Ullman, 2005).

Despite the Castro regime's commitment to health for all, they faced a significant crisis in health human resources just after assuming power. Between 1958 and 1960, 3000 of the 6000 physicians in Cuba left for the United States; the physician-to-patient ratio dropped to 54 doctors per 100,000 inhabitants by 1962 (Ullman, 2005).

Training of new doctors became a priority. The number of medical schools was increased significantly from a single school in 1958 to 23 by the end of the 1990s. By 1975 the ratio of doctors

per 100,000 inhabitants reached 100; by 1990, it was 361; and in 1999, 582 (Sixto, 2002), representing an increase in physicians numbers from about 3000 to over 78,000 (Dunning, 2001).

Cuba's primary care-led Family Doctor programme and the quality of its medical training have both been identified as explanations for Cuba's impressive basic health indicators.

Doctors in post-revolutionary Cuba are not allowed, by law, to accept payment from patients for their services. Their training required that they adopt the communist political philosophy which rejected private medical care (Ullman, 2005) and instead of charging a fee, they receive a salary determined by the State (Kirk & Erisman, 2009).

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6.2 The Process

The commitment to implementing universal health coverage was one of the founding principles of the Castro regime. The Revolution and the radical socialist reforms which accompanied it created the platform for reforms to the health system. Although the authoritarian nature of governance meant that this decision was binding, uptake and roll-out of the policy was not without challenges.

Those who rejected the socialist paradigm or blocked the reform process were no longer welcome in Cuba, resulting in an initial mass exodus of health workers from the country (to be discussed later). Castro's ultimate authority meant that these challenges presented no threat to his regime, nor did they impede the regime's commitment to reform. Decision-makers' authority to act on policy-implementation or change without the need for broad consensus facilitated a process which could be highly responsive and flexible to changing requirements – such as rapidly training a health workforce to compensate for the brain-drain.

The Cuban health system originally adopted a top-down approach, with a strong central authority. However, this system slowly evolved into a more participatory mode. For example, when over-utilisation of the polyclinic system led to diminished personal interaction, overcrowding and deteriorating quality of care, patients sought care at emergency rooms, thus shifting the burden to hospitals. In response, the Ministry undertook a second transformation of the health system, incorporating a more bottom-up approach with increased local autonomy and control of primary health care (Ullman, 2005).

This combination of top-down management and bottom-up feedback implemented in Cuba - intentionally or not - created a system which promoted open communication between service-providers and planners and, according to Ullman (2005), established methodologies "to assure that

improvements in processes are implemented to achieve desired outcomes on a continuous basis”
(2005: 11).

6.3 The Context

6.3.1 Political Context

By late 1958, public sentiment had turned against the Batista regime and its repressive policies and was firmly in support of the revolution (Sweig, 2009).

Not long after the Cuban Revolution, the 26th of July Movement – led by Fidel Castro – and the Cuban Communist Party began to form a closer working relationship. The Cuban Communist Party forged the link between Cuban leaders and the Russian government that led to Russian assistance when US sanctions were implemented (Sweig, 2009).

For the new Cuban government, “the liberal democratic order came to be seen as central to Cuba’s vulnerability to capitalist exploitation and political control by the United States” (Sweig, 2009: 44). Thus, by the end of the 1960s the sugar industry, oil refineries, utilities, transportation companies, property and small businesses were all nationalised and under state management (ibid.). These reforms aimed to address the socioeconomic status quo which skewed benefits towards to urban elite. A significant part of this social justice agenda was the prioritisation of health and education.

The Cuban government’s dedication to providing “health for all” came with the understanding that good health involves more than just medical interventions. In 1989, a “healthy municipalities” strategy was introduced (Spiegel & Yassi, 2004) to promote improvements in non-medical health determinants such as nutrition, education, sports and housing. Multiple sectors were involved but the onset of the “Special Period” (see later) left insufficient resources to develop the project.

The Cuban system has been critiqued for abandoning the traditional democratic model of governance having both the absence of a private sector and free and competitive elections.

Yet, the Cuban Revolutionary government managed to sustain power and even survive the economic crisis in the 1990s. This success has been attributed to the political system which through legitimate governance, an active civil society, and responsiveness and accountability to the people, managed to avoid the vulnerabilities of social and economic pitfalls (Saney, 2004).

6.3.2 Economic Context

In Cuba it is almost impossible to extricate the economic context from the political, primarily because Cuba's socialist ideology provides directives to both.

The initial revolutionary reforms aimed to redistribute wealth in the country. Most sectors were nationalised and minimum wages in agriculture, industry and commerce were increased. Taxes for the working and middle classes were decreased while those for the rich were increased (Saney, 2004).

In further efforts to reduce the socioeconomic inequalities in the country, the government instituted policies to eliminate the disparities in access and quality of services between urban and rural areas. To provide better services in rural areas and make optimal use of limited resources, rural residents were clustered in communities large enough to make service provision viable and efficient (Saney, 2004). New rural towns were created with schools, clinics and libraries and residents were given new homes. Rural areas were prioritised over urban ones, ensuring that rural towns received more equitable allocations of labour and material resources (ibid.). Yet revolutionary idealism was constrained by economic reality.

Cuba did not have the necessary capital, infrastructure, skilled labour, raw material or technology to sustain economic development. In 1961, the United States enforced an embargo on all trade with Cuba. With the termination of trade with their biggest partner, the Cuban economy was buoyed by external assistance from the Council of Mutual Economic Assistance (CMEA), comprising the Soviet Union, Eastern European countries and Mongolia (Saney, 2004).

CMEA contributed investments, resources and technology for development projects. Between 1960 and 1990, the Soviet Union gave Cuba approximately US\$465 billion in foreign aid and loans and was a partner in 85% of all Cuba's trade (81% of exports and 88% of imports) and 75% of its finance (Sixto, 2002; Ullman, 2005; Nayeri & Lopez-Pardo, 2005).

Trading was based on preferential pricing and as a result of the commercial patronage from the Soviet Union, between 1979 and 1989, the Cuban economy grew at an average annual rate of 6% (ibid.).

The dependence on the Soviet bloc made Cuba vulnerable and the demise of the CMEA at the end of the 1980s left it without its main trading partners and major source of investment. After over 30 years, Cuba realised the effects of its economic dependence on the Soviet Union. The end of the trade relationship with CMEA exposed Cuba to world market prices – coupled with a decline in primary commodity exports which had previously been traded at above market prices (Dunning, 2001). This was the beginning of the “Special Period” in Cuba and the onset of the economic crash.

From 1989 to 1993, the GDP declined by 35-40%; per capita income declined by 39%; and all imports including oil decreased significantly. The economic contraction nearly paralysed the country.

In reaction, the government implemented a range of economic stimulation policies, including the establishment of small private enterprises, legalisation of possession of foreign currency and the development of a tourism sector. These policies began integrating Cuba back into the world economy and were successful in halting the economic decline as well as promoting growth. From 1995 to 2000, the economy grew at almost 5% percent per annum and imports and exports have steadily increased (Saney, 2004).

The government still accounts for more than 80% of all employment in the country and some of the regulations which limit the private sector have been eased to improve efficiency but the economy is mostly still under state control (2012 Index of Economic Freedom).

Despite the incorporation of more market-based reforms, Cuba has remained loyal to its original commitment to health, education and social security. Even during the Special Period, investments into these sectors actually increased.

6.4 The Effects

6.4.1 Health service utilization and health outcomes

Health outcome indicators before 1959 were relatively poor in rural areas, with high rates of infectious diseases (Ullman, 2005).

After 1960, infant mortality has been reported to have decreased from 37.3 per 1000 live births to 34 per 1000 live births in 1970 and 19.6 per 1000 live births in 1980 (Ullman, 2005), probably accounted for by increased hospital deliveries and abortions as a means of birth control (ibid.).

During the economic crisis between 1990 and 1994 – the “Special Period” - mortality rates increased from 64 per 10,000 people to 72 per 10,000. Approximately half of the food supplies had been imported, embargoes made it challenging to maintain adequate food security and nutrition (ibid.), with serious malnutrition affecting newborns and pregnant women (Ullman, 2005). Access to medicines and medical equipment was also limited and several health facilities were closed.

Overall, the infectious diseases, malnutrition and lack of resources which accompanied the economic crisis seriously affected the delivery of proper treatment (Ullman, 2005).

Careful resource allocation and increased donor assistance helped the Cuban government to recover by the 2000s. The Cuban government maintained its commitment to health and aimed to improve primary care through an increase in health care providers. Between 1990 and 2003, the number of doctors increased by 76% and nurses by 16% (Nayeri & Lopez-Pardo, 2005). The Family Physician programme, which provided health services to 46.9% of the population in 1990, was expanded to

cover 99.2% of the population by 2003 (Nayeri & Lopez-Pardo, 2005). At the same time, perinatal, infant, under-5 and 5-15 years and maternal mortality all showed improvements (Nayeri & Lopez-Pardo, 2005).

In 2004, the Cuban population had one of the highest life expectancies in the Caribbean region at 75 years for males and 79 years for women (WHO in Ullman, 2005). Infant mortality in the same year was a low 7 per 1000 births – down from 10.2 per 1000 in 1992 (ibid.).

Overall, the Cuban health system proved resilient to the economic crisis of the 1990s, a consequence which has been attributed to the continued prioritisation of health as a human right, as well as sound rationing of limited resources (de Vos et al, 2008). However, this does not mean that the Cuban health system is without current challenges, the most pertinent of which is the state of human resources.

6.4.2 Human Resources for Health

While the number of physicians and nurses in Cuba has been increasing, the number of new medical school enrollees has been decreasing since 1995. The combined effects of a huge surplus of physicians, the prohibition on private medical practice, and the fact that other occupations – particularly those in tourism – provide higher salaries and greater access to dollars, create disincentives for entry into the health sector, or incentives to emigrate (Sixto, 2002). A successful mechanic in Havana could make up to 4,000 dollars a month, while a leading physician would make about 500 pesos or twenty-five dollars a month (Dunning, 2001). Increasingly, doctors are leaving medical practice for employment that offers better salaries.

This internal brain-drain is exacerbated by the external brain drain of doctors emigrating to practice elsewhere. In 1999, 244 doctors left the country (Dunning, 2001).

The quality of Cuba's health workers has been recognised internationally, with accompanying increase in external demand. Between 2003 and 2005 the number of Cuban doctors working overseas increased from 5000 to 25,000 (de Vos et al, 2008). Currently, the implication of this is not only a high turnover of healthcare workers, but in some areas, doctors are caring for 1500 people instead of the 600-800 served before (de Vos et al, 2008).

In Revolutionary Cuba, practising medicine was one of the most prestigious professions, yet the dollarization of the Cuban economy, coupled with the fact that financing for health workers is still peso-based, has diminished this prestige. This disincentive is possibly the greatest threat to health care in Cuba.

The government has started to try to pay bonuses in dollars, but this practice has not been extended to public health. For the most part the strategy appears to be continued reliance on the human capital provided by the many doctors in Cuba and the political will that characterises both the state's commitment to health as well as the commitment of its doctors (Dunning, 2001).

According to Dunning (2001: 20), "the strength of budgetary support for peso-dominated health expenditures on the family doctor system and primary care suggest a political decision about who would bear the costs of structural adjustment in the economy". With limited budgetary resources, the challenging conditions of working in the health sector and the increasing devaluation of salaries, the Cuban health system is potentially over-reliant on political and moral incentives to maintain its success.

6.5 The Economics of Health Financing

The Cuban National Health System is financed entirely by state resources. With a decentralised system, over 92% of the expenditure on public health comes from municipal budgets (Sixto, 2002). The national commitment to healthcare is evident in the health budget allocations: 51 million pesos in 1960, increasing to 1,857 million pesos in 2000, the real value of which expenditure was reduced by increasing inflation over the same period (Sixto, 2002).

The cost of the Cuban health system was mitigated by significant aid from the Soviet Union and the Eastern European socialist countries; Cuba imported the majority of its medical equipment and other inputs through the CMEA, with a long-term bilateral export-import agreement which allowed for significant price subsidies (Dunning, 2001).

However, the collapse of the Soviet Union in 1991 and the termination of both aid from and trade with this state forced Cuba into economic crisis.

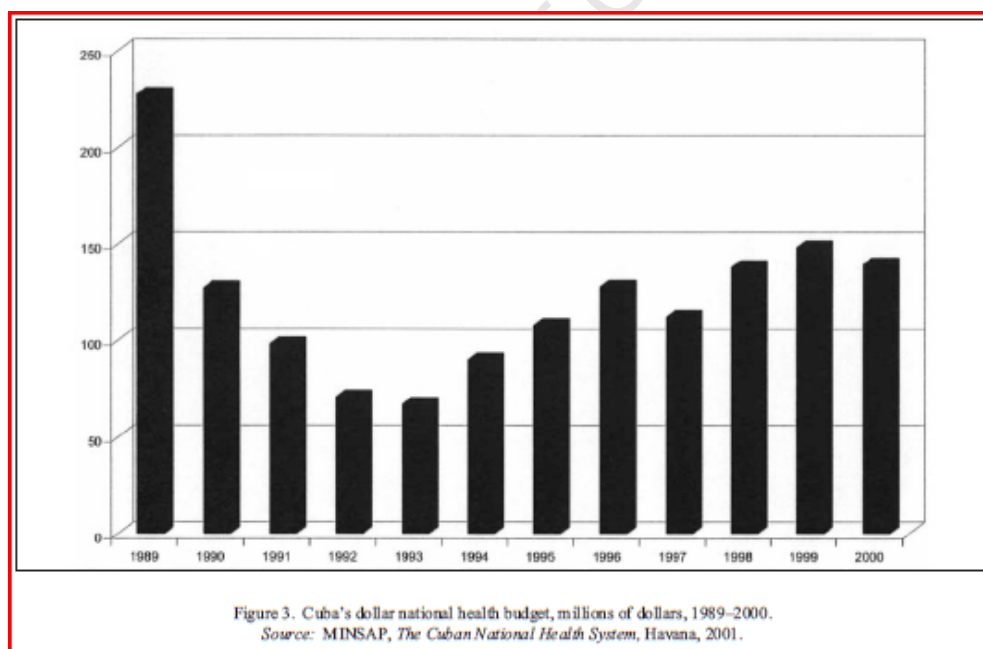
With a 70% decline in trade with the former Soviet Union and a 35% drop in its GDP, Cuba was forced to reduce public health spending by 70% (Ullman, 2005). The economic decline resulted in electricity and food shortages and an unstable exchange rate (Dunning, 2001). Another consequence was a foreign exchanges scarcity. This led to a decline in medical imports. According to the Ministry of Public Health, between 1989 and 1993, total expenditure in foreign exchange dropped from US\$227 million to US\$56 million in 1993 (Dunning, 2001).

Added to this, were increased trade restrictions instituted by the United States. US-based companies and foreign subsidiaries of US companies were banned from all trade and non-US companies' ability to trade with Cuba was limited (Ullman, 2005). Some scholars have argued that this embargo

prevented Cuba from accessing necessary medicines and medical equipment, yet other suggest these shortages were the result of poor planning (Barry, 2000; Mesa-Lago, 2002 in Ullman, 2005). One positive outcome of this period was that the embargoes on pharmaceutical imports forced Cuba to investigate alternatives and establish its own pharmaceutical and biotechnology industries. The development and production of generic drugs violated some patent laws, but met the needs of the population and generated additional revenues from sale of locally-produced pharmaceuticals to other countries (Ullman, 2005).

The effect of the US embargoes and the end of the paternalistic relationship with the Soviet Union meant that Cuba suffered a shortage of hard-currency. The national health finance system relies on a dollar budget to finance its imports (Nayeri & Lopez-Pardo, 2005).

Figure 1: Cuba's Health Budget (million \$) 1989-2000



Source: Nayeri & Lopez-Pardo (2005)

Therefore, expenditure on health-related imports dropped between the end of the 1980s and the mid-1990s (Ullman, 2005).

In response to the challenges which the collapse of the Soviet Union presented, Cuba implemented health reforms. Reforms were being implemented throughout Latin America, but unlike its counterparts who adopted the conservative framework advocated by the World Bank's 1993 World Development Report, Cuba remained faithful to the original tenets of its health system. Instead of introducing user fees and privatising the sector, Cuba maintained its exclusively public national health system (de Vos et al, 2006).

The government's commitment to health was not shaken. In 1994, 5.5% of the national GDP – 1061 million pesos – was spent on health care and represented 14% of all public sector spending (Ullman, 2005). Financial support for this commitment came from the expansion of the national peso budget which is used to finance internal resources for the health system, such as personnel (Nayeri & Lopez-Pardo, 2005). Despite the reduction in foreign exchange expenditure, peso-dominated health care spending increased and spending in this sector, in absolute terms, was cut less than in other areas such as food and oil (Ullman, 2005).

Health expenditures showed absolute increases throughout the 1990s – increasing from 937 million pesos in 1990 to 1,410 million pesos in 1999. That is an increase from 6.6 of the budget to 10.7 percent of the budget (Dunning, 2001). However, the real value of government peso-dominated health expenditure declined over the same period. The Economic Commission for Latin America and the Caribbean recorded expenditure decreases in real terms from 914 million pesos in 1990 to 859 million pesos in 1998 for health (Dunning, 2001). In 1993, domestic trade in dollars was legalised and there was a significant shift towards dollar based expenditure and consumption (Dunning, 2001).

The Special Period posed major challenges for the Cuban health sector but it has been suggested that the crisis was mitigated by humanitarian aid.

After the 1990s, Cuba received loans and humanitarian aid from the Pan American Health Organisation (PAHO), the United Nations Population Fund, the United Nations Development Programme and the United Nations International Children and Education Fund (Sixto, 2002). The European Union Humanitarian Organisation started relief funding in 1993 and by 1995 was allocating 15 million Euros annually to supplying food and medicine (Dunning, 2001). Between 1993 and 1996 total European funding was almost 85 million Euros, in addition to more than 1 million Euros from member states (ibid.).

The donations received may have offset the deficits which occurred as a result of the Special Period but donations are not a reliable source of funding.

In 2000, health care spending in Cuba represented 6.1% of the GDP and approximately 90% of this was allocated to the primary health care level (Ullman, 2005). In 2002, the health care budget was over 1,900,000 pesos – 171 pesos per capita (ibid.).

Despite the health care resource scarcity of the 1990s, economic recovery in Cuba, in addition to consistent public policies, has allowed the health system to recover.

Overall, the Special Period resulted in decreases in imported health resources that were dependent on foreign exchange but the government maintained its health priorities by increasing peso-dominated health care expenditures.

These choices have had a direct effect on the political economy of health care. The health financing system in Cuba is peso-dominated, yet as of 1993, the broader economy has been “dollarized” in an attempt to forge better linkages with the world economy. Dollars enter the Cuban markets through remittances sent from relatives abroad, tourism and foreign direct investment. The dollar economy in Cuba has essentially devalued the peso and is creating a structural problem within the health sector since most health workers have peso-based salaries financed by the state (Dunning, 2001).

This dual economy also helps to explain why the health sector and the cost of health education in Cuba are relatively low. The salaries of health workers and the cost of tuition are paid for by the state in pesos, while public revenue is bolstered by foreign exchange (Dunning, 2001).

SECTION SEVEN: THAILAND

In 2001, Thailand became one of the first developing countries to introduce universal health coverage (Khanna, 2010). The newly elected Thai Rak Thai political party reformed the existing health system to achieve universal health coverage and a relatively comprehensive benefits package.

The rapid introduction of universal health care in Thailand has been termed a “big bang” approach. However, this policy was supported by a commitment to health and social development reform which spans decades.

7.1 The System

7.1.1 Universal Coverage

Thailand implemented a universal health coverage policy in 2001 in response to the inequitable health care access experienced by the poor and those in the informal sector (Wibulpolprasert, 2005).

Rapid roll-out of the policy meant that by 2005, 75% of the population was covered by the universal healthcare scheme (Wibulpolprasert, 2004), 20% by other health insurance schemes and only 5% of the total population did not have health insurance coverage (ibid.).

Under the Universal Coverage Scheme, beneficiaries are entitled to a package of health care services that includes “ambulatory care, in-patient care, high cost care, accident and emergency care, maternity services, an annual physical check up, preventative and promotive health services”, as well as medicines on the National Essential Drugs list (Khanna, 2010: 8)

7.1.2 Overview of the health system prior to universal health care

As early as 1975, the Thai government launched the Low Income Scheme (also referred to as the Public Welfare Scheme) which aimed to provide targeted health insurance for the poor, for those over 60 years, children under 12 years and monks. However, evidence from a household survey in 2000 suggests that only 17% of the poor were covered by this scheme and only 35% of the beneficiaries were actually poor (Tangcharoensathien et al, 2007).

Additional coverage was provided on a voluntary basis for those who were not eligible for the Low Income Scheme (Khanna, 2010). In 1983, this scheme was formalised and the Voluntary Health Card was introduced to cover borderline non-poor households. Initially, the scheme focussed on community-based health insurance for maternal and child health managed by village committees, but was gradually expanded to include other services, until becoming a formal voluntary health insurance in 1991, with government subsidizing 50% of the premium (Tangcharoensathien et al, 2007). According to Khanna (2010), as a voluntary scheme it suffered from risk selection as the healthy opted out. Yet despite this, the scheme still managed to improve population coverage from 1.4% in 1991 to 20.8% in 2001 (Tangcharoensathien et al, 2007).

The other major insurance pool was the Civil Servants Medical Benefits Scheme (CSMBS) which provided public servants and their dependents with a generous benefits package. In 1991, 15% of the population was covered by this scheme but by 2001, as a result of the economic crisis and reductions in fiscal spending, this reduced to 8.5% (Tangcharoensathien et al, 2007).

Lastly, there was a Social Security Scheme for formal, private sector employees financed in a three-way equal share co-payment with a mandatory contribution from government and the employer and a payroll tax from the employee (Pachanee & Wibulpolprasert, 2006).

Table 1: Health Insurance Schemes in Thailand before Universal Coverage

Insurance Scheme	Target Population	Financing Source	Public Health Expenditure per Capita in 1999	Provider Payment Method	Main Health Care Provider
Low Income Card (LIC) Scheme since 1975	The poor (personal income < 2,000 Baht/month), the elderly, children < 12 yrs, disabled, monks, community leaders, health volunteers	General tax	363 Baht + additional subsidy	Global budget	Public providers, referral line for inpatient care
Civil Servant Medical Benefit Scheme since 1980	Government employees, their dependants, and retirees from the public sector	General tax	2,106 Baht	Fee-for-service	Public providers
Voluntary Health Card since 1983	Non-poor household not eligible for LIC	500 Baht (household contribution) + 1,000 Baht (general tax)	250 Baht	Proportional reimbursement	Public providers, referral line for inpatient care
Social Security Scheme (SSS) since 1990	Private formal sector employees	Payroll tax, contribution from employer and government	519 Baht	Capitation	Private providers at contracted hospital
Private Health Insurance	More affluent individuals	Household or employer in addition to SSS	n/a	Fee for service with ceiling	Public and private providers

(Source: Damrongplasit, 2009 in Khanna, 2010)

Table 2: Percentage of Population Covered

Health Insurance schemes	1991	1996	2001
The Low Income Scheme	12.7	12.6	32.4
Civil Servants Medical Benefits Scheme	15.3	10.2	8.5
Voluntary Health Card	1.4	15.3	20.8
Social Security Scheme	-	5.6	7.2
Private Health Insurance	4.0	1.8	2.1
Total Insured	33.4	45.5	71.0

Source: Wibulpolprasert, 2005 and Tangcharoensathien et al, 2007

7.1.3 Overview of the health system under universal health care

Health system reform in Thailand aimed to achieve several objectives: firstly, to improve health systems' efficiency, reflected as better use of health care facilities and cost containment; secondly, to ensure equity through the standardisation of benefits offered by, and equal access to the available public insurance schemes; thirdly, to practice good governance by separating the purchaser and provider roles within the Universal Coverage Scheme (UCS); and lastly, to improve the quality of care provided (Tangcharoensathien et al, 2007).

The UCS was intended as an improvement on the Low Income and Voluntary Health Card schemes. The Low Income Card scheme was not reaching the poor effectively and the Voluntary Health Card scheme suffered from risk selection and required a co-payment which was not always affordable for those who needed it. After 2001, the Civil Servants scheme and the Social Security Scheme still existed, but those ineligible for these benefits, namely those in the informal sector who had previously been covered by the Low Income and Voluntary Health Card schemes, were provided with universal access to care under the UCS. Initially, those wishing to be beneficiaries of the UCS had to register to become card holders, after which they were entitled to receive care conditional

upon a 30 Baht co-payment per outpatient visit or inpatient admission. However, this practice of co-payment was abolished in 2006 by the new government (Khanna, 2010).

In 2001, 71% of the Thai population was covered by health insurance, increasing to 94.3% in 2004. 73.5% of this achievement is attributable to the universal healthcare scheme which resulted in coverage of a higher proportion of rural beneficiaries than that for the urban population. The latter had greater coverage under the social security system and the civil servant benefit scheme (Wibulpolprasert, 2004).

Table 3: Health Insurance Schemes in Thailand after Universal Coverage

Insurance Scheme	Target Population	Financing Source	Public Health Expenditure per capita	Benefit Package	Provider Payment Method	Main Health Care Provider
Universal Coverage Scheme	Low income citizens	General tax (as of 2006)	1,659 Baht	Comprehensive package (ambulatory care, in-patient care, emergency care, preventative services) , but some exclusions on high cost services	Capitation (primary health care); fee-for-service (tertiary); global budget (in patient)	Public providers
Civil Servant Medical Benefit Scheme	Government employees, their dependants, and retirees from the public sector	General tax	8,785 Baht	Comprehensive package	Fee-for-service	Public providers (and registered private facilities)
Social Security Scheme (SSS)	Private formal sector employees	Payroll tax, contribution from employer and government	1,738 Baht	Comprehensive package	Capitation	Private providers at contracted hospital
Private Health Insurance	More affluent individuals	Household or employer in addition to SSS	n/a	Comprehensive package	Fee for service with ceiling	Public and private providers

(Source: Khanna, 2010)

The introduction of the Universal Coverage Scheme provided access to comprehensive health care for the majority of the population who otherwise would not have had access to such services. However, under the Civil Servant Medical Benefit and Social Security schemes users were provided with access to both public and private providers – thereby granting them freedom of choice in the quality of service provided which UCS users do have. This is in part reflected in the per capita cost difference between the UCS and the CSMBS (Khanna, 2010).

Between 1991 and 2004, the proportion of people with access to health facilities increased from 49% to 72% (Wibulpolprasert, 2004). Amongst those who previously did not have health insurance, the implementation of the universal healthcare scheme increased coverage from 47% in 1991 to 61% in 2004 (ibid.).

Experience with the Low Income Scheme provided the historical precedent for a comprehensive benefit package. Private beds, special nurses, cosmetic surgery and eye glasses are excluded from the benefits package. Initially, costly treatments such as HIV/AIDS treatment, dialysis and renal replacement therapy were also excluded but in 2003 HIV/AIDS treatment was included and in 2007, dialysis and renal replacement therapy were included within the scheme's benefit package (Khanna, 2010: 8).

A key feature of the Thai Universal Coverage design is the *purchaser-provider split*. The National Health Security Office acts as the purchaser of care (paying the primary care health facilities), designs the benefit package and co-ordinates the payment methods. The Ministry of Public Health, in addition to private facilities and institutions are responsible for providing the health care services (Tangcharoensathien et al, 2007).

Primary health care facilities are the main contractors for service provision. In most cases, they are the fund holders and are responsible for referrals and fee-for-service payment to secondary and tertiary facilities (Khanna, 2010). In rural areas, the public district health system is the primary provider of health services but in urban areas, the provider may be either the public system or private hospitals as long as they register with the Ministry of Public Health.

The health facilities have to register to be providers and are required to provide free care. Providers are paid on a capitation basis for outpatient services, except in the case of emergencies or accidents. In the event of an accident or emergency, beneficiaries are then allowed to access secondary and tertiary facilities without the otherwise necessary referral from the primary health facilities and the health facility is reimbursed on a fee-for-service schedule (Khanna, 2010). In-patient services are financed through a global budget – set at a national level (Khanna, 2010).

7.2 The Process

The Thai Rak Thai (TRT) Party used “30 Baht to treat all diseases” as its main election campaign slogan and after being elected in 2001, fulfilled their promise and made providing universal health care a priority. The political will which the TRT displayed found congruency with a wider health reform movement active in Thailand which made generating a consensus more feasible.

Eleven non-governmental groups – comprising of both civil society and research organisations – were involved in drafting the Universal Coverage Bill submitted to Parliament at the beginning of 2001 (Khanna, 2010). The implementation of the scheme was top-down and the Ministry of Public Health gradually scaled up coverage over a rapid four phase process (Tangcharoensathien et al, 2007). In April 2001, the scheme was implemented in six provinces; by July 2001 it was operating in 21 provinces and in October 2001 was expanded to the whole country (Pachanee & Wibulpolprasert, 2006). Private providers played a minimal role in both the formulation of the scheme and its implementation. It is the rapid decision-making and scale-up which earned the Thai implementation of universal coverage the title “the big bang” approach.

The first attempt at drafting a national health insurance policy was in 1996 but failed as a result of the 1997 economic crisis and lack of adequate civil society support (Tangcharoensathien et al, 2007). In 2001, the political conditions were more conducive to health sector reform because, although Thailand still had a coalition government, only three parties were represented and almost half of the members of the House of Representatives came from a single party (Wibulpolprasert, 2004). This provided a more cohesive decision-making body able to lead the reforms.

According to Pitayarangsarit (2004), “Universal coverage was picked up because it was seen as legitimate, feasible under the existing public, health infrastructure and fiscal capacity, and also

congruent with the reform intention of the political party. Once it became the government in 2001, an important factor in early policy formulation was the extent to which national research provided evidence to support the implementation of this policy” (in Tangcharoensathien et al, 2007).

The reform movement was supported by the new government, civil society groups, academics and researchers, policy makers as well as the Ministry of Public Health. The tri-factor of technical capacity, strong political will and public support, were vital in initiating reform in Thailand and is referred to as “the triangle that moves the mountain” (Wasi, 2000).

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7.3 The Context

7.3.1 The Political Context

By 2004, Thailand had experienced 11 coup d'états, nine rebellions and 53 cabinets both democratically elected and appointed (Wibulpolprasert, 2004). Thailand became a democracy and got its new Constitution in 1997. Yet, despite this, it is still regarded as being relatively unstable because of the conflicts which occur between the coalition parties which make up the government (ibid.).

In 2001, the Thai Rak Thai party was elected into government on a populist platform of development and growth. Despite allegations of corruption, undermining independent civil society institutions and limiting press freedom, the party was re-elected in 2005 by a significant majority (Baker & Phongpaichit, 2009).

However, soon after re-election growing protest began calling for the then Prime Minister, Thaksin Shinawatra, to resign. Parliament was dissolved and new elections were planned. However, before they could be finalised, a group of top military officials overthrew the government in a non-violent coup d'état in 2006 and repealed the 1997 Constitution (ibid.). A new constitution was drawn up and the interim military government held a multi-party election which was won by the Thaksin People's Power Party (TPPP). By 2008, the TPPP Prime Minister was forced from office, and the party was dissolved. A new Democrat Party leader was appointed as Prime Minister (ibid.).

The period of Democrat rule between the end of 2008 and 2011 was characterised by anti-government protests and violent standoffs between protesters and government security. In July

2011, the Puea Thai Party won the elections. This party is affiliated to the Thai Rak Thai party and many of the populist development policies have been re-introduced (Baker & Phongpaichit, 2009).

The erratic Thai political environment gave rise to an active civil society movement. According to Lockhart, the Thai civil society agenda is imbued with a “vision of a constant struggle for political and policy power in any society threatened with abuse of power by the state” (2002: 5). Throughout the 1990s, civil society became more responsive to economic growth and social movements were centred on initiatives such as rural development. Civil society also began advocating for greater grassroots awareness of and participation in state planned projects and policies (Asian Development Bank, 2011).

Civil society organisations in Thailand have political, social and economic focuses and are involved in knowledge and information systems, policy planning, resource issues and advocacy (ibid.).

Through civil society organisation such as these the national development goals and the health sector reforms are closely monitored in order to meet the system objectives.

7.3.2 Economic Context

The Thai government has long been guided by the ethos of a “sufficiency economy” – one that encourages balanced and sustainable development (Khanna, 2010). This approach has led to cognisance of a broader social agenda throughout its fluctuating economic history.

During the economic boom period starting in 1988, the Ministry of Public Health’s budget increased more than four times and by 1998 made up 7.7% of the overall government budget

(Wibulpolprasert, 2004). A large portion of this budget was invested in new buildings and more advanced medical equipment.

However, expenses also increased significantly. The Civil Servants Medical Benefits Scheme had a four-fold increase in expenses – from 4,316 million Baht in 1990 to 16,440 million Baht in 1998 – in less than a decade as a result of overspending on expensive drugs and technologies, as well as embezzlement (Wibulpolprasert, 2004).

The private sector thrived during the high growth period but the gains to the sector were inflated by dubious practices such as overprescribing drugs, kickbacks from product pushing, unnecessary referrals to private hospitals, and unregulated fees for private services (Wibulpolprasert, 2004).

The internal brain-drain of health workers from the rural public to the private urban sector, as well as the significant discrepancies in the poor-rich health spending burden, led to the period being dubbed the decade of “High Cost but Less Health” (Wibulpolprasert, 2004).

This economic growth led to a decrease in overall poverty. Between 1962 and 1996, the proportion of indigent people declined from 57% to 17% (Wibulpolprasert, 2004). As a result of the economic boom, absolute poverty decreased from 33% in 1988 to 11% in 1996 (Yienprugsawan, 2010).

Despite national economic growth, the disparities between income groups were widening. In 1996, the highest income quintile had 57% of the national income while the lowest quintile had only 4% (Wibulpolprasert, 2004). In addition, decreasing overall poverty masks the differences between rural and urban areas. The number of rural poor is three times greater than that in urban areas.

The 1997 economic crisis was brought about by the Thai government's decision to open its financial market in 1993 without sufficient monitoring and control measures. An influx of foreign currency overvalued the currency and slowed down the export market (Wibulpolprasert, 2004). Several industries declared bankruptcy; there was high unemployment; high interest rates and high inflation, which again forced the government to reduce its public spending.

The 1997 economic crisis inhibited the positive growth trend with annual economic growth declining to -11% in 1998, which in turn affected the poverty statistics. In 2000, the proportion of the people living below the poverty line in Thailand was 21.3% but improved to 16% in 2002 (Wibulpolprasert, 2004).

By 2002, Thailand was in economic recovery mode and had implemented a domestic economic stimulus policy. The government formulated a national plan – “poverty reduction and income distribution” in Thailand in the 9th National Economic and Social Development Plan (Somkotra & Lagrada, 2008). The objective was to increase the low incomes and the consumption levels of the poor, as well as to improve the structural problems that entrench poverty (ibid.).

The policy encompassed, pro-poor macroeconomic management to strengthen the informal economy; capacity building and enhanced employment opportunities; natural resource management; public sector restructuring; and the provision of social protection for vulnerable groups (Somkotra & Lagrada, 2008).

With increasing trade liberalisation, Thailand's involvement in international trade has increased significantly. In order to capitalise from the growth opportunity which trade afforded, Thailand has had an established and successful export promotion policy for the past three decades. Yet, it is still

looking to increase the potential benefits of involvement in international markets by exploiting what it considers its comparative advantage – the health care business (Pachanee & Wibulpolprasert, 2006). The challenge is to foster growth without exacerbating the inequities in health services with regard to the distribution of health care workers.

With the exception of the 1997-1998 economic crisis years, Thailand has experienced rapid economic growth for the past three decades – fostered largely by strong political leadership and a government committed to both economic and social development. Even though during this period there has been a reduction in absolute poverty and significant development of the health system infrastructure, relative poverty and inequality in income distribution has not undergone the same improvement. The income disparities are most prevalent in the widening inequalities between rural and urban areas (Yienprugsawan, 2010).

7.4 The Effects

7.4.1 Health service utilization and health outcomes

The average life expectancy at birth of Thai people in 2002 was 69 years. This was an improvement from the previous life expectancy statistics but the substantial increase was between 1964 and 2000 when life expectancy for males went from 56 year to 70 years, and 62 years to 74 years for females (Wibulpolprasert, 2004). Therefore, this improvement cannot be attributed to the implementation of universal health coverage.

According to the World Bank estimates, the infant mortality rate per 1000 live births declined from 49 in 1980 to 24 in 2001. The child mortality rate per 1000 live births also declined from 58 in 1980 to 28 in 2001 (in Wibulpolprasert, 2004).

As a result of economic growth, Thailand is going through an epidemiological transition which has seen improvements in child and maternal mortality and poverty related disease but the onset of “new” health problems which include chronic disease and injuries (Yienprugsawan, 2010).

In Thailand, there is available data on the effect of the implementation of universal coverage on health services utilisation. While health outcomes could be affected by a range of determinants, utilisation rates offer a unique indication of the uptake of reforms.

Between 1996 and 2001, during the economic crisis, annual outpatient visits decreased from 2.87 to 2.84 per person. There was also a significant shift away from using private facilities with an increase in public facilities utilisation from 25.4% to 48.45% (Pachanee and Wibulpolprasert, 2006).

After implementation of Universal Coverage, and during Thailand's rapid economic recovery, annual outpatient visits increased to 3.62 per person and there was an increase in public facilities use – primarily because most people registered for universal health insurance have to use the public facilities closest to their homes (Pachanee & Wibulpolprasert, 2006).

A decline in hospitalisation in private facilities between 2001 and 2005 suggests that moderately well off yet previously uninsured people who after 2001 had access to the Universal Coverage scheme, no longer opted for private care (Yienprugsawan, 2010). This means that private health care became more strongly restricted to the wealthy.

There is a significant difference in the type of health services frequented between rural and urban settings. This could be explained by the proximity and accessibility of health centres and community hospitals in rural areas compared to the urban location of secondary and tertiary facilities (Yienprugsawan, 2010). As mentioned previously, one of the objectives of the UC policy was to improve primary health service use by making these facilities the referral centres – essentially making primary healthcare facilities gatekeepers for further access to secondary and tertiary services.

The more pronounced use of health centres and community hospitals by the rural poor is likely to be a reflection of: Firstly, the accessibility of alternative services to those with non-UCS health insurance in urban areas; secondly, the remoteness from and the travel costs of accessing alternative services in rural areas; and thirdly, the different levels of coverage of employment-related health insurance such as the CSMBS and SSS (Yienprugsawan, 2010). However, it also suggests that the UC policy was successful in its aim of “channelling inappropriate demand away from higher level public facilities” (ibid.). According to Yienprugsawan (2010: 9) “unburdening higher level public health facilities from

routine primary care provision is sensible but must not be allowed to deprive the poor of access to more advanced care when needed”.

The increased use of primary health facilities satisfied one of the objectives of the Universal Coverage Scheme. However, this increased utilisation and demand for services within the public system has resulted in a greater demand for human resources (Pachanee & Wibulpolprasert, 2006).

7.4.2 Human Resources for Health

In Thailand, the availability of an adequate workforce to sustain the public health system, and therefore the universal coverage initiative, appears to be less sensitive to the introduction of the universal health policy, than it is to the economic climate which frames it.

As early as the 1970s, rapid economic growth, in addition to government investment to support private hospitals, significantly expanded the private health sector (Wibulpolprasert, 2003). The incentive of better pay in the private sector, resulted in an outflow of medical workers from the public sector – a phenomenon referred to as an “internal brain drain” (Pachanee & Wibulpolprasert, 2006). From 1971 to 1995 the number of doctors in the public sector went from 93% to 76%, while in the private sector numbers increased from 7% to 24% (Wibulpolprasert, 2004). By 1997, 21 community hospitals had no doctors working for them (ibid.)

Yet, in mid-1997 the severe economic crisis reduced people’s purchasing power led to a decrease in demand for private health care and most private hospitals reduced their staff or closed (Wibulpolprasert, 2003). Those who could no longer afford private care, returned to public facilities to receive treatment. Doctors then returned to the security of public sector employment.

Economic recovery in 2001 reversed this trend and led to increased demand from Thai locals for private health care. The demand for doctors to provide their services in the private sector accounted for approximately 41% of the total demand for health services (Pachanee & Wibulpolprasert, 2006).

The number of doctors resigning from public health facilities during 1995-1997 was approximately 300 per annum. During 2002-2003, those numbers increased to 500-600 per annum (Wibulpolprasert, 2004). This can largely be attributed to lower remuneration in the public versus the private sector with doctors working in public hospitals being paid anywhere between 4-10 times less than their private counterparts. In addition, there was also demand for private health services from foreign patients.

In 2003, there were over 970 000 foreign patients utilising Thai health care services and these services collected US\$660 million in revenue (ibid.). If this trend continues, there will be an ever increasing need for additional health workers to serve both local and foreign patients.

In response to the demand for health care workers, the Thai government has steadily been increasing the production of doctors by increasing the number of medical graduates. However, there are also challenges in the distribution of doctors.

Most doctors are clustered in urban areas – particularly Bangkok. The rural-urban disparities improved between 1979 and 1989 but worsened during the economic boom between 1989 and 1997 (Wibulpolprasert, 2004).

In an effort to compensate for this inequality, the government implemented the “One District, One Doctor Project” in 2004. This programme recruited high school students from rural districts to be trained at local universities and hospitals and then retained them to work in their home districts (Pachanee & Wibulpolprasert, 2006).

Overall, the human resource distribution between the public and private sector, as well as between the rural and urban areas, is affected by the economic climate, improving during periods of recession and worsening during economic booms when the private sector expands.

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7.5 The Economics of Health Financing

During the 1997 economic crisis, utilisation of both private and public health services dropped, while there was an increase in the number of people self-medicating. The MoPH's budget was reduced from 68 million Baht in 1997 to 61 million Baht in 2001 (Wibulpolprasert, 2004). The Ministry responded to this budget cut by reducing its capital investment but left its operating budgets intact (ibid.).

Private health services were the most affected with several facilities closing and many employees being retrenched. The sector also underwent restructuring and 25 private hospitals registered under the social security health insurance scheme (Wibulpolprasert, 2004).

In response to the economic crisis, health insurance coverage was expanded through the universal healthcare scheme. Despite the decrease in the overall Ministry budget, the budget for the social welfare health insurance was increased by 25.3% in 1997 (Wibulpolprasert, 2004).

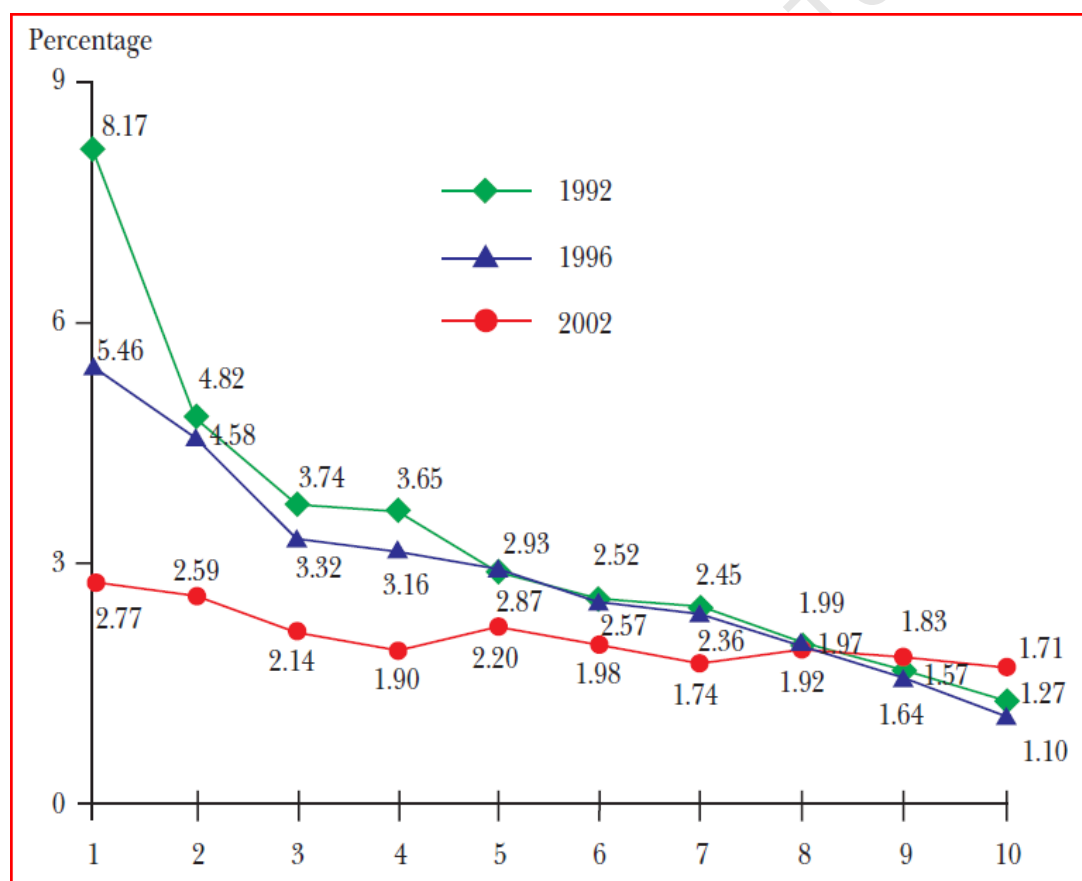
The recovery period, saw an increase in the demand for private health services as well as a government policy to invite foreign patients to utilise Thai health services. This has led to another brain drain from public rural facilities to private urban ones (Wibulpolprasert, 2004).

The largest public financial source is the Ministry of Public Health. During the economic boom, the Ministry of Public Health's budget was 8% of the national budget, but much like everything else, this was affected by the crisis and declined. Since the government implemented the universal health care policy, the Ministry's budget has increased from 6.7% in 2001 to 6.9% in 2002 and 7.6% in 2004 (Wibulpolprasert, 2004).

The introduction of the universal healthcare scheme has reduced household spending on health care across almost all income groups – largely because the scheme is financed by the government. However, spending reductions appear to have been the greatest for the poor.

In 1992, the health spending burden relative to income was more than 6 times higher for the poor than for the rich. However, after the implementation of the universal health care scheme in 2001, this inequality has fallen with the poor experiencing less than twice the health spending burden of the rich (Wibulpolprasert, 2004).

Figure 2: Percentage (%) of Households' Health Expenditures Compared to Income in 1992-2002



Source: Vasavid in Wibulpolprasert (2004) using data from the Household Socio-Economic Survey

2002

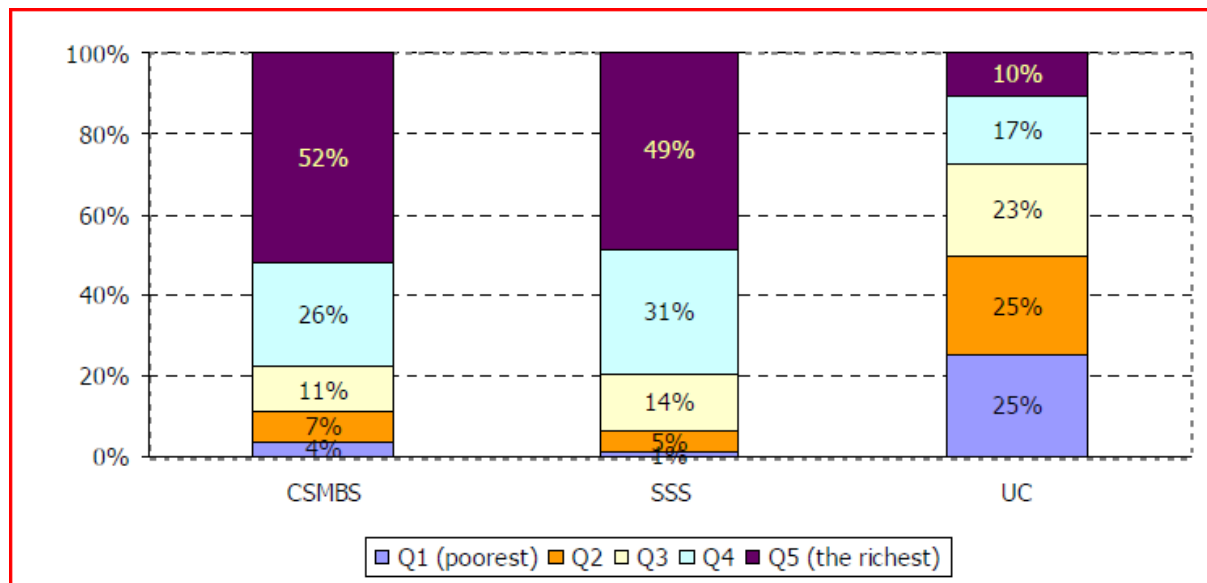
According to evidence from the Thai National Statistical Office presented in Tangcharoensathien et al (2007), 25% of the beneficiaries of the Universal Coverage scheme belong to the poorest quintile, with approximately 50% of the beneficiaries coming from the two lowest quintiles. By comparison, the CSMBS and SSS mainly cover beneficiaries in the richer income quintiles.

After Universal Coverage was introduced out-of-pocket payments for health as a percentage share of household resources decreased in all incomes quintiles except the richest (Somkotra & Lagrada, 2008). The decrease in out-of-pocket spending by the poor, together with pro-poor benefit incidence, is a positive reflection on the effectiveness of the UC scheme.

The incidence of catastrophic health expenditure – more than 10% of total household consumption expenditure being spent on health – decreased from 5.4% in 2000 to 3.3% in 2002 and 2.8% in 2004. The number of individuals forced into impoverishment as a result of health spending also decreased from 2.1% in 2000 to 0.8% in 2002 and to 0.5% in 2004 (Limwattananon et al, 2005).

Interestingly, health spending for the highest income group increased by 42% (Wibulpolprasert, 2004). The high proportion of out-of-pocket spending in the higher quintiles as a proportion of household spending suggests that those with the means are able to exercise consumer choice and seek high quality services that are perceived to be provided in the private health sector (Somkotra & Lagrada, 2008). This could be because these users chose to seek health services outside of the basic benefits offered by their insurance scheme or because they chose to forfeit their entitlements under the universal healthcare scheme. This health seeking behaviour – driven by capacity to pay – is common in other developing countries with pluralistic health systems (ibid.).

Figure 3: Scheme beneficiaries by income quintiles, 2004



Source: NSO Health and Welfare Survey, 2004 in Tangcharoensathien et al (2007)

A benefit incidence analysis undertaken by Limwattananon et al (2005) indicated that for outpatient care in 2004, the Concentration Index – which measures the distribution of benefits from the use of services across income groups – was -0.3326 and -0.2921 for health centres and district hospitals respectively. Outpatient care at provincial hospitals measured -0.1496. A larger concentration index number, or positive numbers, indicate that rich households are benefitting more than poor ones. Therefore, the higher negative values at health centres and district hospitals indicate that these health facilities are pro-poor. The lower negative index for outpatient care at provincial hospitals show that these services are less pro-poor.

For inpatient care at district hospitals the concentration index was -0.3130 in 2001 and -0.2666 in 2004. Provincial hospitals again appear to be less pro-poor with a concentration index of -0.1104 in 2001 and -0.1221 in 2004 (Limwattananon et al, 2005). Overall, the district hospital services appear to be more pro-poor than the provincial hospital services.

Benefit incidence analysis has shown that after UC had been implemented, public subsidies benefited the poor more than the rich. Other studies show that UC prevented households from incurring catastrophic health expenditure and that it averted impoverishment (Somkotra & Lagrada, 2008). However, there remains a disjuncture between the availability of services in rural and urban settings.

Despite the implementation of the universal health coverage policy, there are still significant inequities within the health system regarding resource allocation, budgeting and access. Overall health resources per capita are high but there are regional disparities in the distribution of human resources, number of bed and health facilities (Wibulpolprasert, 2004). In Bangkok, the bed to population ratio is 1:179; the doctor to population ratio is 1: 767. In the more rural Northeast, the bed to population ratio is 1: 759 and the doctor to population ratio is 1: 7251 (ibid.). Similarly, the health care budget tends to be allocated to wealthier regions – a problem which may be related to the number of health facilities in each region.

“The burden of health expenditure does not correspond with the ability to pay” (Wibulpolprasert, 2004: 342). In Thailand, the poor have a greater burden of health expenditure relative to the rich – even after the implementation of the universal health coverage scheme, the difference in health spending between the rich and the poor dropped to only 1.6 times (ibid.). In addition, patient care at provincial hospitals preferences the rich while the poor only received greater benefits from use at outpatient health centres or community hospitals (ibid.).

The majority of the targeted beneficiaries of the Universal Coverage scheme work in the informal agricultural sector and do not have a regular income. Yet, the universal coverage scheme is financed by general, and largely income, tax revenues. Collecting contributions from the rural poor in

Thailand via taxes is almost impossible and would not support the Thai pro-poor agenda. Thus, practicality dictates that it is the urban, employed population contributing to the financing of the universal health care scheme. An EQUITAP study by O'Donnell et al (2005) reinforces this deduction by indicating that overall health financing in Thailand is progressive.

However, the long term financial sustainability of Thailand's Universal Coverage scheme is not certain. The International Labour Organisation conducted a review in 2004 which concluded that UC had been successful in improving access to health services. However, the study also reported that health care costs have been increasing by approximately US\$583-667 million every year and the UC scheme "will remain vulnerable to budgetary competition and political manipulation rather than evidence on utilisation and cost of service" (ILO in Thoresen & Fielding, 2011: 21).

In 2006, the new military government abolished the original 30 Baht co-payment, increased the range of health services available under the scheme and there was an increase in health care seeking behaviour. Without the additional revenues generated by the co-payment, the increased use and increased cost of service provision, the Universal Scheme could become vulnerable and potentially unsustainable (Thoresen & Fielding, 2011). There is currently a movement supporting the reinstatement of co-payments which would be proportional to the services being sought (ibid.).

In addition to the Universal Coverage scheme, the state also finances the CSMBS and the SSS. Despite scaling down the benefits available under the CSMBS package, the scheme is still very generous and covers approximately 3 million civil servants and an additional 1 million dependents (Thoresen & Fielding, 2011). In 2002, the per capita annual expenditure in terms of share of average public health expenditure per capita was 159% for the CSMBS and 58% for the UC – making the former almost three times more expensive than the UC (Ibid.).

It has been suggested that a health coverage system which is based on more traditional insurance principles and risk management; and which benefits from the state being able to cost share with the private sector – such as the Thai Social Security Scheme – may be a more efficient and sustainable system (Thoresen & Fielding, 2011). Yet, serving a limited and generally more affluent pool, the SSS is not pro-poor.

The Universal Coverage scheme is one of the most popular public policies – public polls conducted between 2002 and 2004 by the National Health Security Office and others show more than 70% satisfaction (Pachanee & Wibulpolprasert, 2006). Such public support will generate the political motivation needed to sustain the scheme.

SECTION EIGHT: RWANDA

Rwanda is one of the poorest countries in the world. Yet it has recognised that health is a necessity and that by committing to the goal of universal coverage, it will be better positioned to foster social cohesion and economic growth.

8.1 The System

8.1.1 Universal Health Care

The universal health care scheme in Rwanda is financed through compulsory membership to community-based insurance schemes, called *mutuelles*. These schemes provide health care coverage to 92% of the population (USAID, 2010). Membership requires a contribution of 1000 Rwandan Francs per annum which entitles them to three benefit packages (Diop et al, 2007). The first is a basic health centres package covering maternal and child health, family planning, preventative healthcare and minor surgical operations. The second is for district hospital care and the third for tertiary hospitals (Diop et al, 2007).

8.1.2 Overview of the health system prior to universal health care

After the 1994 civil war and genocide in Rwanda, the government implemented a district health model which decentralised all aspects of health care provision to the district level. However, health centres did not have the human resources or equipment to function effectively. Also, 60-80% of their financing was collected through user fees which created a financial barrier to health care access for the poor (Logie et al, 2008).

The policy of user fees allowed fee exemptions for people certified as “indigent” but, as a result of the high numbers of indigent people as well as the need for health care providers to recover costs, these people were often denied health care (Diop et al, 2007). Non-governmental organisations both domestic and international arranged for reimbursement for the care of indigents in health facilities but this system proved costly to administer.

Before the official implementation of *mutuelles* there were two distinct health insurance systems. The first was the institutionalised schemes such as the Rwandaise Health Care Insurance, the Army Mutual Association and the Genocide Survivors’ Fund and the second were informal community-based schemes – the foundation upon which *mutuelles* were developed. These schemes were active prior to adoption of a universal coverage policy and still are.

The Rwandaise Health Care Insurance (RAMA), established in 2001, initially provided health insurance for civil servants and covered all benefits provided in public health facilities and some approved private ones, with the exception of anti-retrovirals, prostheses and spectacles (Musango et al, 2006). In 2006, RAMA had 49,283 contributors with 106, 111 dependents. The scheme has since been expanded to include other formal sector workers as well as members’ dependents (ibid.).

The Army Mutual Association had approximately 100,000 beneficiaries in 2006. The membership and administration of this scheme is identical to the RAMA with the only difference being in the criteria for membership.

Membership of both the RAMA and the army scheme requires a compulsory contribution of 15% of the employees' salary, with half of this subsidised by the employers. 85% of the benefits provided by this scheme are financed through the pooling of these contributions and are administered by a third-party payment system. The remaining 15% of the benefit costs are recouped through co-payments from the beneficiaries (Musango et al, 2006).

The Genocide Survivors Fund provides health care coverage for needy victims of the 1994 genocide and covers all medical benefits, except antiretrovirals, and also provides support for school fees (Musango et al, 2006). 1% of all workers' salaries as well as additional corporate taxes are used to supplement the public account which finances this scheme. No co-payments are required and there were approximately 283,000 beneficiaries in 2006 (Musango et al, 2006).

Mutuelles existed in Rwanda before Independence, albeit in very isolated settings. After Independence, mutual initiatives were developed in at least five provinces – Kibungo, Butare, Gisenyi, Gitarama and Kibuye – and were organised either by the communities themselves to provide insurance for health or transport costs or by independent service providers linked to health centres (Musango et al, 2006). These *mutuelles* operated until 1994 but the genocide destroyed any attempts at social organisation, up until 1999 when the post-genocide government renewed interest in the development of more formalised *mutuelles*.

8.1.3 Overview of the health system under universal health care

The Rwandan health system aimed to revitalise health care and strengthen equity in access to care (Kayonga, 2007). Unfortunately, the Ministry of Health's plans to reform the health financing system were ruined by the 1994 war and genocide (Parry & Weiyuan, 2008).

More recently, the government has re-invigorated its commitment to improving financing of health services in the country and has introduced the mutual health insurance scheme, known as *mutuelles de santé* or simply, *mutuelles*. Sometimes referred to as mutual health organisations (MHOs), community-based health insurance (CBHIs) or micro-health insurance, initiatives such as these rely on community involvement to manage and co-finance health care provision (Parry & Weiyuan, 2008).

Community financing for health makes the households in a community finance the health services provided in that area. Community-based health insurance schemes build on that basic principle by incorporating risk sharing (Carrin et al, 2005). In contrast to tax-funded health financing or social health insurance schemes, community-based health insurance schemes are more accessible resource mobilisation tools for countries that may not have a robust tax base or the institutional capacity to collect taxes or extend social health insurance to those that are unemployed or work in the informal sector (ibid.).

Factors which would influence the performance of CBHI schemes – in terms of providing access to good quality and effective care, as well as sustainability – include affordability of membership contributions, the source of funding and expanded enrolment to enhance risk pooling (Carrin et al, 2005).

The increasing interest in community-based health insurance schemes is a result of the inability of many developing countries to mobilise sufficient resources from the population through tax; and hence the lack of public resources to finance health and welfare programmes; as well as the prioritisation of providing universal health care (Schmidt et al, 2006). There is a wide body of literature on community-based health insurance (Bennett, 2004; Carrin et al, 2005; Ekman, 2004; Precker & Carrin (eds), 2004), and what is consistently highlighted is the need to make these schemes accessible to the “very poor”.

With the financial and technical support of development partners, *mutuelles* were initiated as a pilot project in 1999 but significant uptake only took place in 2004 when the government incorporated the community-based insurance schemes into national policy (Parry & Weiyan, 2008). From April 2008, membership to some form of health insurance was made compulsory; every Rwandan is obliged to have some form of health insurance coverage (ibid.). Membership of *mutuelles* was scaled up from about 35% of the population in 2006 to almost 85% in 2008 (Shimeles, 2010). Such rapid growth of community-based health insurance is unprecedented in any other country (ibid.).

Currently, *mutuelles* form part of the formal system that makes up the pluralistic public health financing system active in Rwanda. This system provides state financed health care for the military, victims of the genocide, community representatives, soldiers and their dependents, as well as prisoners (Musango et al, 2006). However, the largest, in terms of population coverage, is the *mutuelles* scheme.

Initiated in order to serve lower income groups who otherwise would have restricted capacity to pay for health care services, schemes such as this are not expected to generate sufficient revenue to cover the full cost of health care for everyone (Diop et al, 2007).

“Rwanda is the only country in sub-Saharan Africa in which 85% of the population participates in mutual insurance programmes for their health coverage...(coverage is provided for) the rich as well as the poor, the young as well as the old, the urban as well as the rural population” (Musango, 2008). Today, health insurance coverage in Rwanda has reached 92% (USAID, 2010).

The *mutuelles* are funded by three sources, household, government and donor contributions. Initially, household contributions fluctuated across areas ranging from 3,500 to 5,000 Rwandan francs in rural settings and up to 11,500 Rwandan francs in the cities. However, from 2007, this payment was standardised to FRw 1,000 or just under US\$2 per person per year (Diop et al, 2007). Members are also required to make a US\$0.30 co-payment for each visit to primary health care facilities and a co-payment of 10% of the total cost of the service in hospitals (ibid.).

Risk pooling takes place firstly at the sub-district level, covering approximately 15,000 people; secondly at the district level, covering approximately 300,000 people; and lastly at a national level – where government has created a dedicated solidarity fund, from which the Ministry of Finance, via the Ministry of Health, sponsors the mutuelle contributions of indigent groups (MoH, 2009). The Community Risk Pool is managed by the *mutuelle* at sub-district level and covers primary care; the District Risk Pool is a fund that unifies proportional contributions from the community pool in addition to subsidies from the local government. The National Pool pays for tertiary care. The RAMA and Military Medical Insurance pools are separate (MoH, 2009).

The *mutuelle* members are entitled to three complementary benefit packages. The most basic is the health centre package which covers pre-natal and post-natal consultation, vaccinations, family planning, nutritional services, curative consultations, nursing care, hospitalisation, assisted delivery,

essential generic drugs, laboratory analyses, minor surgical operations, preventative health and ambulance transfers (Diop et al, 2007). The second package is for district hospital care and the third for tertiary health services. In order to access secondary and tertiary care, members need to be referred by the primary providers who act as gate keepers for the rest of the system (ibid.)

For those who are just unable to pay the required premiums for *mutuelle* membership, and do not qualify for donor sponsorship or government subsidies, microfinance institutions have emerged to provide loans to pay the premium. These loans need to be repaid within 12 months and come with a 15% interest rate. In order to make the borrowing process accessible to the poor, no collateral is needed but to guarantee the loan, banks instead require that borrowers cluster in registered associations. If the loan is approved, the microfinance banks deposit money directly into the *mutuelle* account (Diop et al, 2007). This system relies on community control and social pressure to secure repayment of loans.

According to Diop et al (2007) microfinance has been effective in removing financial barriers to *mutuelle* membership and is now the “preferred enrolment mechanism”. However, it is unclear how the very poor generate the finances to repay the loan and the interest accruing to it.

Mutuelles appeared to be a good means of providing health care coverage for vulnerable groups because, as community-based schemes, it became easier to identify and target the poor with subsidised premiums – a process which has since been institutionalised in national policy (Diop et al, 2007).

One estimate indicates that approximate 10% of the population are exempt from paying the *mutuelle* premium but that up to 30% of the poorest in the population still need to have their fees waived (Kalk et al, 2005 in Logie et al, 2008).

Financing needed to subsidize the premiums for the very poor come from either interest generated from the *mutuelle* bank accounts or through the sponsorship from NGOs or development partners. In 2004-2005, approximately 15 donor organisations supported 200,000 to 290,000 people; and in 2006 the Global Fund for AIDS, Tuberculosis and Malaria started a five-year grant to sponsor the membership fees for the very poor, orphans and people living with HIV/AIDS (Diop et al, 2007). By 2008, the Global Fund was financing approximately 1.5 million Rwandans (The Bulletin of the WHO, 2008).

Also in 2006, the government began to co-finance membership fees so that the benefit package available could include secondary and tertiary care. Revenue for this comes from a *national solidarity fund* which pools contributions from the formal sector's social insurance scheme, the Military Medical Insurance scheme, the central government (when possible) and external partners (Diop et al, 2007). This fund allocates funds to district *mutuelles* to pay for the very poor and reimburses tertiary hospitals at a negotiated fee for providing care to members referred to them by district facilities (ibid.).

There is no standardised provider payment mechanism. Some *mutuelles* pay providers on a capitation basis while others reimburse on a fee-for-service basis. The government has also implemented performance-based payment which reimburses providers based on the output achieved – for example, number of children immunised – in order to meet certain health outcome targets (Diop et al, 2007). This mechanism can potentially increase the utilisation of identified

services and improve efficiency. It is uncertain whether *mutuelles* have the financing or management capacity to cope with this payment system but it is yet another means of trying to augment the health sector budget.

The *mutuelle* infrastructure has been 'linked' with the pre-existing insurance schemes in Rwanda – public financing and social health insurance – through the establishment of *national solidarity funds* (Diop et al, 2007). These funds essentially allow all contributions to be pooled at a national level before allocating them to the various schemes and assist in minimising administrative costs.

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8.2 The Process

Local *mutuelle* initiatives were present in Rwanda in the 1990s, but the national development of these schemes only started in 1999. Formalising the *mutuelle* system came in response to both the decline in the use of health services as a result of user fees as well as the decrease in financial aid as Rwanda transitioned from a post-genocide to a development period (Diop et al, 2007).

The *mutuelle* policy in Rwanda was implemented with specific objectives: a) to remove financial barriers to accessing health care; b) to improve the quality of health care; c) to enhance management capacity; and d) to improve community participation in the management of health care services (Diop et al, 2007). The operational mechanisms needed in order to achieve these goals were unclear, therefore the Rwandan government adopted an incremental policy roll-out approach.

The pilot phase was initiated in 1999 and during this time policymakers designed their implementation strategies, developed the administrative system and defined the roles certain actors would play, and worked to generate consensus on the *mutuelles* policy (Diop et al, 2007).

The adaptation phase – which took place between 2001 and 2003 – implemented the recommendations which came out of the pilot project and expanded *mutuelle* enrolment. Since then, the *mutuelles* have been scaled up to cover all provinces and districts.

Health insurance in Rwanda is given additional support by two complementary health policies. The Ministry of Health's "*Health Policy 2004*" aims to improve the availability of human resources and quality drugs/vaccines; expand geographical access to health facilities; improve the financial accessibility to health services; improve the quality of health services; strengthen research; reinforce institutional capacity (MoH, 2009).

The “*Health Sector Strategic Plan 2009-2012*” revised plans and recommitted to health reforms and improvements. The important new initiatives included performance-based financing¹ to reimburse health providers and motivate increased utilisation and improved quality of services; and further expansion of the *mutuelles* and research into better mechanisms for subsidizing the premiums for the very poor (MoH, 2009).

The Health Financing Policy in Rwanda is committed to ensuring that “quality health services and particularly MDG-related interventions are financially accessible to the whole population in an equitable, efficient and sustainable manner under a result-based financing framework” (MoH, 2009). In order to achieve this goal the Ministry of Health intended to formulate and implement policies related to: improving risk pooling; improving the efficiency of resource allocation; increasing internal resource mobilisation in order to make the system more sustainable; and improving the effectiveness of external aid for health (MoH, 2009).

The role which donors played in the formulation and implementation of the universal health coverage policy in Rwanda has not been identified in official documents or open source materials.

Overall, in order to better understand the process of universal coverage implementation, the development of the policy process in Rwanda requires further documentation and review.

¹ The impact of the introduction of performance-based remuneration on the health system will not be discussed in this paper. Performance-based financing creates financial incentives for health workers to meet specific performance indicators (Kalk et al, 2010). Limited evidence suggests that this may result in positive outcomes with only limited resources – and Rwanda is often touted as the exemplar of this. However, there is a lack of evidence on what the long term effects may be. Kalk et al (2005) suggest that performance-based remuneration may lead to crowding-out of services not remunerated, in an uncontrolled environment the influence of just one policy cannot be disassociated with the broader set of reforms.

8.3 The Context

8.3.1 Political Context

On April 6th 1994, military and militia groups in Rwanda administered the systematic murder of over 800,000 Tutsis and moderate Hutus. The genocide triggered a civil war which lasted until the Rwandan Patriotic Front (RPF) defeated the Rwandan Army and took Kigali on July 4th 1994. The war ended on July 16th (www.iss.co.za).

The RPF organised a coalition government called “the Broad Based Government of National Unity”. In 2003, Rwanda adopted a new constitution and planned for presidential and legislative elections. The seven political parties involved endorsed Paul Kagame for president and he was elected to a seven year term from 2003 to 2010 (www.iss.co.za).

The RPF leads a multi-party government. However, in practice the RPF retains control over all government ministries and non-RPF members retain their seats through the grace of the ruling party. Members of both government and civil society who speak out against the RPF government risk harassment, arrest or assassination. Political parties capable of threatening RPF dominance, are accused of causing ethnic divisions in Rwanda or of supporting genocide ideology as a means of discrediting and disqualifying opposition (Longman, 2011). This suppressive political environment has also encumbered free speech and discussion. It is reported that citizens have realised that there are no benefits to challenging the RPF (ibid.)

What the RPF-led government has been commended for is its handling of external aid. Since 1994, the government has asserted its policy independence, declaring that the government and no one else should decide how the country is run (Zorbas, 2011). In a 2007 speech, President Kagame said:

“To realise our development vision, we...must substitute external conditionality...with effective domestic policies – knowing what we need to do and articulating this clearly and consistently to our development partners. This requires that, among other things, we learnt to say “no” to donors whenever their priorities do not align with our development objectives.” (in Zorbas, 2011: 108).

What assists a positive donor-recipient in Rwanda is that for most donors, Rwanda is not of strategic or commercial interest. Development cooperation is the primary interest for big donors and in this respect “donors need success stories as much as the recipients need the aid” (Lorenzo (2008) in Zorbas, 2011: 109). Therefore, as long as donors continue to see results and perceive their funding to be used efficiently, there will continue to be interest in Rwanda from the donor community.

The sustained donor funding in Rwanda despite the political situation, has led to concerns that the donor community is sending the wrong message about democracy promotion. For now, donors continue to adopt a non-offensive approach based on constructive dialogue, rather than critiquing the state. Yet, the risk of the Rwandan government becoming an openly authoritarian state is high, in which case donor funding will be retracted (Hayman, 2011).

8.3.2 Economic Context

Progress in developing an equitable health system in Rwanda has not taken place in isolation from socio-economic development. In 2000, the government introduced a development framework – “Vision 2020” – a long-term plan with objectives to be achieved by the year 2020. The aim is to halve the number of people living in poverty; improve life expectancy to 55 years; and decrease aid dependence (MoH, 2009). In order to achieve these goals the government plans to decrease population growth, improve access to education and improve population health by targeting the poorest and improving the access, quality and cost of health care (ibid.).

This objective and outlook was put into policy through the Economic Development and Poverty Reduction Strategy Paper in 2002. The primary strategies promoted were sustainable growth to increase employment; poverty reduction in rural areas and improved governance (MoH, 2009).

In 2008, agriculture contributed 31% to the economy – with 80% of the population dependent on agriculture for domestic income; services contributed 47.7%; and industry contributed 15.6% (MoH, 2009).

Economic growth between 2001 and 2005 averaged at 5.6% per year and has largely been attributed to the comprehensive economic reforms implemented (Diop et al, 2007). Corruption has declined, there has been significant infrastructure development and primary school access and enrolment has improved (Logie et al, 2008).

Yet, despite GDP growth from US\$ 235 per capita in 2002 to US\$ 492 per capita in 2008, Rwanda is still one of the poorest nations – the national poverty headcount showed only a marginal decline between 2000/2001 and 2005/2006, from 60% to 57%. Importantly, in rural areas where 90% of the population live, the prevalence of poverty remained unchanged at 62% over the same period (MoH, 2009). This is indicative of the unequal distribution of income between urban and rural areas – Rwanda's Gini co-efficient measuring economic inequality is 0.51 (Logie et al, 2008).

Rwanda is also heavily dependent on foreign aid as a result of the limited formal sector in the country as well as the small tax base (Diop et al, 2007). Revenue collected from domestic sources contributed only 15% of GDP in 2005 (ibid.).

8.4 The Effects

8.4.1 Health service utilization and health outcomes

As a result of improvements in essential child health interventions, such as immunisation and management of neonatal and childhood diseases, under-five mortality rates in Rwanda decreased from 152 to 103 per 1000 in under a decade (MoH, 2009). Improvements in maternal health have also been made with an increased rate of assisted deliveries from 39% to 52% between 2005 and 2007 and significant improvements in the use of contraceptives by women (ibid.). The leading causes of death in children under-five are malaria, pulmonary infections, diarrhoea, malnutrition and premature birth as a result of malaria. Child malnutrition is a challenge and 24% of all children under-five are underweight but improvements have been made in reducing malaria morbidity – rates decreased from 37% in 2005 to 15% in 2008 (ibid.).

It has been suggested that if these trends are maintained, and further improvements in community-based nutrition programmes and neonatal management are made, Rwanda has a chance of meeting the child mortality Millennium Development Goal by 2015.

With malaria and HIV/AIDS as the major burdens of disease in Rwandan, it is vital that preventative measures are strengthened and extended to cover the rural poor, in order to decrease the effect of these diseases on households, the economy and the health system (MoH, 2009).

Membership of *mutuelles* led to increased use of health services. In 2000, members made 1-3 visits annually compared with the average of 1 for the non-insured. The *mutuelles* have increased health service utilisation irrespective of income but the impact appears to be higher for lower income

quintiles than higher ones (Saksena et al, 2010). This suggests that the *mutuelles* scheme will decrease the utilisation gap between rich and poor.

8.4.2 Human Resources for Health

Very little research is available on the status of human resources for health in Rwanda. According to the Ministry of Health (2009), progress still has to be made regarding the availability and distribution of qualified health personnel.

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8.5 The Economics of Health Financing

Total health expenditure (THE) per capita declined from US\$18 in 1998 to US\$12 in 2002, with an improvement to US\$17 in 2003. Between 2003 and 2006, THE per capita doubled to reach US\$34 at the end of the period and THE as percentage of GDP increased from 6.6% to 10.7% (MoH, 2009). It is important to note that a significant share of the available health financing was earmarked for HIV/AIDS interventions (ibid.).

In 2006, government health expenditure was US\$6.3 per capita and contributed 19% to THE. Donor contributions of US\$17.7 per capita made up 53% of THE and private, out-of-pocket spending was US\$9.4 per capita and contributed 28% of the THE (MoH, 2009).

Figure 4: Health Financing, 1998-2006/7

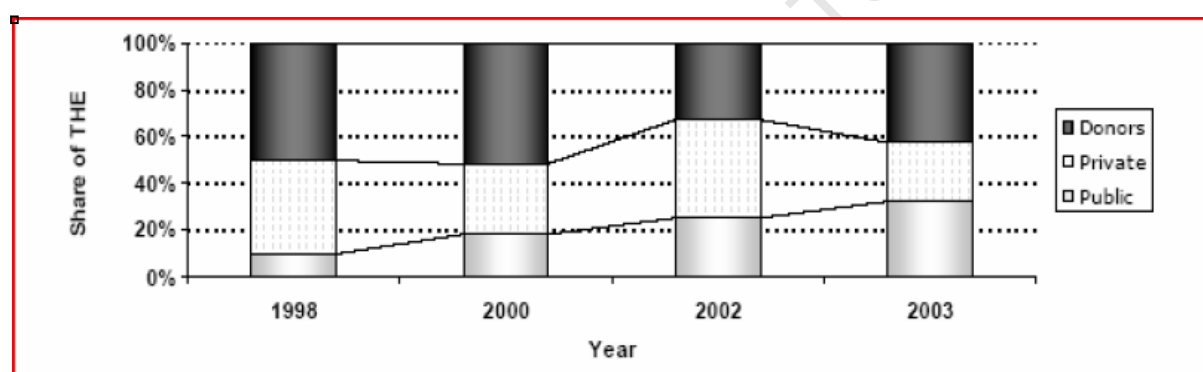
Table 1. Levels and Sources of Health Financing, 1998-2006					
	1998	2000	2002	2003	2006
Levels of Total Health Expenditures (THE)					
THE per capita (US\$ 2006)	10.4	9.5	9.9	16.9	33.9
THE as % of nominal GDP	5	4	4	9	11
Financing sources distribution as a % of THE					
Public ^a	10	18	25	32	19
Private	40	30	42	25	28
Donors	50	52	33	42	53
<i>Source:</i> NHA 2006					
<i>Notes.</i> a. Public including loans and grants.					

Table 2. Selected economic and health financing indicators						
	2002	2003	2004	2005	2006	2007
Health Budget as share of GDP (%)	2.1	1.4	1.6	2.2	3.4	3.0
Health Budget as share of National Budget (Recurrent) (%)	4.5	6.4	5.6	6.0	6.4	6.1
Health Budget as share of National Budget (Development) (%)	10.2	4.8	8.0	12.6	24.0	15.0
Health Budget as share National Budget (Total) (%)	6.9	5.9	6.3	8.2	12.6	9.1
<i>Source:</i> 2008 Public Expenditure Review.						

Source: MoH (2009)

The distribution of health finance contributions changed in 2003 – the first year in which state contributions exceeded those of the private sector, primarily representing private household spending (Diop et al, 2007). Still, the largest share of health financing in Rwanda comes from donors with aid contributions more than doubling since 1998 (ibid.). The graph below shows that that even though donor funding has increased since 1998, as a share of total health expenditure, there has actually been a slight decrease in the donor contribution. This is because public funding also increased over this time.

Figure 5: Share of health financing by public, private and donor sources in Rwanda, 1998-2003



Source: Diop et al (2007)

The increase in domestic revenue and aid resulted in an increase in available government revenue and hence government spending. However, increasing the share of public spending on health remains a challenge. Rwanda's public health spending was US\$6.3 per capita which was low compared to neighbouring countries: Zambia spent US\$23, Kenya US\$14 and Mozambique US\$12. The public budgetary allocation for health was 11.4% in 2007 – below the Abuja target of 15% (MoH, 2009).

In 2002, the government was spending 8.6% of its revenue on health but this only contributed approximately a third of total health spending in the country. The remainder came from donors and out-of-pocket expenditure (Logie et al, 2008).

Data from household and patient surveys obtained between 2000 and 2006 showed a significant reduction in out-of-pocket expenditure for health services. Yet, despite the scale-up and expansion of *mutuelles*, out-of-pocket spending is still the main form of private expenditure within the health sector. Private expenditure contributed 28% of THE in 2006, compared with 25% in 2003. Of private expenditure which amounted to US\$9.4 per capita in 2006, out-of-pocket spending made up US\$7.5 per capita; *mutuelles* only contributed about US\$3.6 per capita (MoH, 2009). A possible explanation for this is the fact that the *mutuelle* schemes only cover part of the cost of health services and beneficiaries are still expected to make a co-payment for health services received (MoH, 2009).

However, the poorest members of *mutuelles* spent a tenth of the amount spent by non-members in the same income bracket in 2000; and between 2000 and 2006 out-of-pocket expenditure for health declined by 25% (Diop et al, 2007). However, this data also showed that the lowest income members were contributing 20% of the household income towards health expenditure (including the premiums) while higher income members were spending less than 10% of their household income (ibid.).

There is a lack of conclusive evidence regarding the financial protection afforded by the *mutuelles*.

In 2006, almost 3% of all households – approximately 280,000 people – experienced catastrophic health expenditure. Of those that were uninsured and were paying for health services via out-of-

pocket payments, the proportion facing catastrophic health expenditure doubled to 6% after implementation of the *mutuelle* scheme (Saksena et al, 2010).

Of those who were insured by a *mutuelle*, one-fifth faced a household financial burden exceeding 10% of household income (ibid.). Additional costs, exogenous to the *mutuelle* system, such as forgone income or transport costs, may affect this outcome but still indicate that the *mutuelles* could improve the level of financial protection given to beneficiaries.

Schmidt et al (2006) show that any contribution to the *mutuelles* which exceeds US\$1 per year per capita, would exceed the monthly income of the poorest quartile. The implication is that the higher the contribution, the fewer the number of people who receive coverage. The challenge is thus to set the premium so that it maximises revenue for the health financing system while also maximising health insurance coverage.

The *mutuelles* scheme has been supported by external donors, such as the Global Fund to fight AIDS, Tuberculosis and Malaria (The Bulletin of the WHO, 2008).

The dependence of the health sector on donor funding presents a challenge to the sustainability of health developments. The Rwanda health sector now receives the largest share of external resources on the continent (MoH, 2009). Donors' contributions to total health expenditure increased from 42% in 2003 to beyond 53% in 2006 (ibid.).

The sustainability of the *mutuelles* scheme has been questioned in terms of domestic financial contributions. Contributions are currently not calculated based on capacity to pay since everyone makes an equal payment. Despite the generally low per capita income in Rwanda, the system may

need to improve opportunities for cross-subsidies between the better-off and the very poor (The Bulletin of the WHO, 2008).

Donor Funding

More than 50% of the financing for health care in Rwanda comes for donors or NGOs. Approximately, 27% of state and donor resources are spent on administration of these funds. In addition, the time scale for funding is often unreliable – most projects are only financed for a year before being renegotiated – and is susceptible to changes in inflation or the exchange rate (Logie et al, 2008). This makes long-term planning impossible.

In 2006, the Rwandan government began integrating all donor funding into a single framework which plotted the sustainability of aid over the medium- and long-term (Logie et al, 2008). Policy plans are formulated by the government in consultation with development partners such as the United Kingdom, the European Union, the World Bank, the African Development Bank, Sweden, the Netherlands and Germany (ibid.). These donors now provide aid in the form of direct budget support but parallel funding of specific sectors or projects has not been disallowed (Logie et al, 2008).

As yet, sector-wide approaches for health have not yet emerged in Rwanda but donors have increasingly been aligning their funding to support government objectives. An example of this is the Global Fund to fight AIDS, Tuberculosis and Malaria which contributes to the *mutuelles*; has assisted in renovating district laboratories and upgrading health facilities; provides performance-based financing for HIV/AIDS treatment; as well as funding the prevention of mother to child transmission treatment programme (Logie et al, 2008).

SECTION NINE: DISCUSSION

This dissertation used a systems thinking approach to assess factors potentially influencing the implementation and sustainability of universal health care systems. Conventional health system frameworks did not address the issue of contextual determinants of health systems' functioning adequately, and the intention of this paper was to identify whether a systems thinking approach could answer the question: *What are the characteristics of developing countries that claim to have successfully implemented universal health coverage policies? And how have these systems been sustained?*

From the assessment of Cuba, Thailand and Rwanda, it appears that the factors which have the most prominent impact on the implementation and sustainability of universal health coverage are the nature of political leadership and available revenue. In order for universal health coverage to be implemented, there needs to be political will and an opportunity created by greater social change to facilitate it. In order to sustain this system, there needs to be strong and continuous leadership to allow health policies to be developed that are complementary to other sector policies; are supported by a wide range of co-ordinated resources; and can be seen all the way through from inception and implementation to complete integration. Most importantly, in order for universal coverage to be successful, it needs the revenue to sustain it. The cases of Cuba, Thailand and Rwanda highlight these findings.

9.1 Cuba

The Cuban health system is one of the most equitable in the world. With 100% coverage for almost all services, Cuba is the closest example of truly universal health within developing economies. This system has been sustained for over fifty years and political commitment to it has been maintained.

In order to effectively implement this system, the country was divided into units as small as a single neighbourhood – each serviced by a physician and nurse team who run the primary health care unit. This team is the referral gateway to the rest of the health system. While aiding in preventing congestion at district and tertiary health centres, this system fails to accommodate consumer choice in physician. Yet, in the interest of efficiency, and given the successes of the model, it seems a fair trade-off.

With some of the best health outcomes in the region, certainly in the developing world, Cuba is considered one of the best examples of universal health coverage implementation. The Cuban system is perceived as being a success both in terms of equity and efficiency. This achievement is aptly described by de Vos as an “exclusive public health system (which) has been quite unique in pairing limited resources with excellent results (de Vos et al, 2008). “Cuba’s exclusively public health system has been quite unique in pairing limited resources with excellent results” (de Vos et al, 2008).

While the Cuban health system has been lauded for its commitment to universal health coverage and its ability to follow through on this commitment, it does not necessarily follow that this model should, or indeed could, be emulated in other developing countries. Current health systems frameworks do not give consideration to the structural issues which frame the health sector and are likely to be the best predictors of the system’s potential for transferability and sustainability.

The successes achieved in Cuba derived from a number of factors which are unlikely to be duplicated: economic gain and protection from the patronage of USSR; the long-term rule of the Castro regime which allowed for planning and a consistent commitment to the policy; the dominant public sector and its constant prioritisation of health; and importantly, the relatively high levels of spending on health – assisted by external funding.

The success of the Cuban health system can be attributed largely to this rare congruence of political, economic and development features. The fact that Cuba is a developing country cannot alone justify suggestions that if Cuba could achieve universal coverage, other developing countries can do it, too. Without the strong political commitment shown by the Castro regime, along with a plethora of other determinants, it is unlikely Cuba would have succeeded.

Within the health system, the strength of the health workforce is a critical component of its success. There is reason to believe that in the long run, with Cuba's increased assimilation into the global economy and their acceptance of the dollar for local trade – while medical workers are still paid in pesos – will lead to increasing shifting of costs onto these workers. With this shift in macro-economic direction, the sustainability of a health system so reliant on the dedication of its health workers is fragile.

The success of “the Cuban model” – as represented by impressive health indicators– eclipses concerns about the health system's capacity, organisation and sustainability. However, before recommending the Cuban system as a model for other developing countries to emulate, a detailed and systematic assessment of the strengths and weaknesses of the system and its socio-political-economic context needs to be undertaken.

9.2 Thailand

The Thai government addressed poverty alleviation and promoted an equitable health financing system by reducing reliance on out-of-pocket spending and by introducing a mechanism which pooled financial risks. This universal coverage scheme, introduced in 2001, was rolled out so rapidly that within four years of its initiation, 75% of the population was covered by it, leaving only 5% not covered by any other insurance scheme.

Like Cuba, primary health care units responsible for designated areas are the cornerstone of the Thai health system. These units have been successful in promoting access to health care and decreasing service use of secondary and tertiary facilities.

What makes Thailand unique is that the commitment to providing health services to everyone has not relied only on political will for its sustainability. Certainly, the coincidence of having the political support of the “newly” elected Thai Rak Thai Party significantly facilitated the introduction of universal coverage. However, at that point, a culture of equitable social development was already present in the country and through political change and upheaval the Thai system has stayed true to these values. This could be explained by a strong civil society – inclusive of a strong academic and research cohort – capable of engaging with the state on issues of importance, and of monitoring the state’s commitment to social development and equity.

However, like any universal coverage scheme, within a conducive socio-political environment, the success of the health system remains dependent on having both the human and the financial resources to sustain it.

Within Thailand, there is on-going concern over the failure to achieve an equitable distribution of health care workers across urban and rural areas, as well as between the private and public sectors. The trend appears to be that in an economic growth period, when the private sector is dominant, there is an internal brain drain away from public health services, within which there is already an urban bias. This implies an unfortunate correlation between economic growth and inequitable service provision across urban-rural areas.

“Insufficient regulation of human resources for health leading to an inequitable internal distribution of health care professionals...can render the poor without access to essential health services” (Thoresen & Fielding, 2011: 21). Without regulation to determine human resource capacity and distribution, the system would be defunct.

Along with human resources, the Thai health system requires adequate financial resources to sustain it. While the tax base is not insignificant, there is no pooling of funding, and therefore cross-subsidisation, between the different insurance schemes. It has been suggested that a more efficient and equitable strategy may be to merge the three public insurance schemes thereby reducing the administrative costs of running separate insurances while maintaining the pro-poor nature of the Thai public health financing system (Thoresen & Fielding, 2011).

9.3 Rwanda

The case of community-based health insurance in Rwanda is interesting for several reasons. The first of these is the exponential rate at which the *mutuelle* schemes were scaled up – especially given the uncertainty regarding the effects on service utilisation and financial protection. Second is the political commitment of politicians and policy makers to the *mutuelle* scheme, despite the economic and political challenges faced by Rwanda (Shimeles, 2010).

When the Rwandan government implemented a universal health coverage policy in 2004, a mere decade had passed since the genocide. It was, and remains, one of the poorest countries in world, and at the inception of the policy, health infrastructure was severely lacking. Yet, even within this unlikely context, the government recognised the importance of improving its health system and supported efforts striving for universal coverage.

The timing of this commitment coincided with global interest in universal health care and widespread support for developing countries to attain the Millennium Development Goals. The nature of Rwanda's economy at the start of the 2000s also made it attractive to donor support and other development assistance initiatives.

With a limited revenue base, and therefore a lack of public resources, community-based health insurance schemes were the most feasible health financing system. This system allowed members to share part of the cost of health provision. The effectiveness of the national solidarity fund in facilitating risk pooling will have to be assessed when more data – particularly regarding the socio-economic profile of the members – is available.

In order to relieve some of the financial pressure on households, innovative financing strategies – such as microfinancing – have been implemented and significant subsidies have been contributed from the state and the donor community. These subsidies are vital in maintaining a financing system that allows the poor to have access to health services – particularly those from donor organisations that subsidise the entire premium.

Since 2004, there have been improvements in health outcomes in Rwanda – particularly in maternal and child health. This suggests that the universal health coverage policy has been effective.

There is insufficient evidence on the efficiency and equity of the current health financing system to generate a conclusive assessment. The entire population is expected to have compulsory membership with a *mutuelle* scheme but this membership comes at a cost. In a population where more than half the population lives in poverty, more than half should also be exempt from paying the necessary *mutuelle* premiums or co-payments.

Yet, very little information is available regarding the number of non-poor benefitting from the state and donor subsidies or the number of poor people who do not have access to health coverage (Diop et al, 2007).

It has been suggested that the government support additional interventions such as development of income generating activities that target the poor, in order to enhance the capacity of this group to cover their own health care premiums (Diop et al, 2007).

The inability of the state to raise revenues for the health system from domestic sources has led to over-dependence on external funding. This dependence undermines the sustainability of the health system since external funding is neither predictable nor constant.

The dependence on donors has merely shifted the affordability constraint from households to the state and donors. Thus, a precarious relationship has developed between equitable financing and sustainability.

However, strategies such as these could only be feasible further into the future and do not mitigate the current challenges faced by the health system.

The *mutuelle* scheme is an innovative way to institutionalise risk pooling and generate additional resources for a developing health system but the financing of this scheme still relies on extracting revenues from relatively poor households who cannot afford the premiums and an overdependence on unpredictable donor funding. Even with government commitment to universal health, were it not for donor funding, universal coverage would not have been feasible. Thus, the implementation conditions and process were very unique to this circumstance and are unlikely to be replicated elsewhere and even if the system could be transferred, little more could be gauged from the Rwandan experience regarding equity, efficiency or sustainability.

9.4 The Similarities and Differences

Current health systems frameworks which focus solely on how health financing is collected and from whom; how resources are pooled; how providers are reimbursed; and which services are provided are not sufficient to gauge the key determinants affecting implementation of universal health coverage or whether these systems will be maintained. At best they can respond to whether or not a system is adequately providing health coverage.

In the cases of Cuba, Thailand and Rwanda, health systems' frameworks can be used to assess whether or not their health financing systems display all the elements of an equitable and efficient system. In general in these three countries, there are mandatory contributions to a health insurance scheme that pools resources, shares risk and this financing allows for the provision of accessible services that appear to have positive health outcomes. Yet there are additional factors which appear to determine the success of each system's implementation and others which affect their maintenance and future sustainability that are overlooked by these frameworks.

In general, factors such as the political and economic context tend not to be included in the health systems' frameworks commonly used. These considerations have so far been limited to the health policy and planning arenas.

From the studies included in this paper, it seems as if an expanded conceptual framework for health systems, which includes political, social and economic factors which lie outside of the health system provides a better option for assessing both universal health coverage and its outcomes through a systems thinking approach.

Perhaps the most important factor leading to the successful introduction of universal health care policies is political will and stability. This is necessary not only for legitimising the policy, but it is also vital for leading the policy process, and for supporting responsive and flexible reforms which promote long-term sustainability.

The importance of political will has been recognised in the introduction of policies such as universal coverage but has not been emphasised enough in relation to maintaining the reform and providing the political support to sustain it through challenging economic periods, as well as the oversight to manage the policy successfully.

In both Cuba and Rwanda, the one-party, authoritarian regimes created a political environment in which the decisions of the state could be implemented without opposition and could be carried out quickly. The top-down nature of policy-making provided these regimes with a system-wide perspective and the power to restructure the system to be more conducive to universal health care provision. In Cuba, this includes having the autonomy to allocate resources in favour of their social justice agenda. However, this political system is attended by other sacrifices, such as freedom of choice.

In Thailand, the universal coverage policy gained its support both from the state as well as an active and involved civil society. If technical capacity, strong political will and public support were “the triangle that moved the mountain” (Wasi, 2000), then public support was definitely at the apex. Pressure from civil society managed to put universal coverage on the reform agenda in 2001 and has since ensured that it has been maintained through several ruling party changes.

In Thailand, civil society support has proven a more than adequate alternative to the authoritarian regimes which carried the policy of universal coverage in Cuba and Rwanda but is dependent on having a government which is receptive to civil society participation. This suggests that public policies require sustained support from stakeholders, whether state or civil society, who are able to affect change and manage policy and system development in the face of several challenges.

Such challenges, where there is already political buy-in and support, come mainly from the economic context – particularly having the financial revenue to sustain universal health care provision and having an adequate health workforce.

Both management of scarce human resources for health and development of innovative health financing mechanisms have been discussed in the health systems literature but as yet, few concrete solutions have been presented. Consideration needs to be given to the economic context, financial and human resource capacity in any country contemplating implementation of universal coverage or any other reform. These factors cannot only be considered when implementing a policy but need to be considered far earlier when reforms are first presented as development tools. For example, the feasibility of long-term maintenance of a universal coverage health system should have included an economic context evaluation before being introduced in Rwanda.

In Rwanda, where there is an obvious lack of domestic revenue, the universal health scheme has been sustained by the continued funding from the international donor community. However, in times of financial crises – such as now – developing countries should not expect to rely on increasingly limited external aid.

Even in Thailand, which is relatively far more developed than Rwanda, the universal health care scheme is proving a drain on public resources. Maintenance of the system is contingent upon continued economic growth and higher salaries to bolster the tax base and create improved cross-subsidies from wealthy to the poor. However, the pattern in Thailand seems to be that economic growth and the expansion of the private sector draws human resources out of the public sector which administers the universal coverage initiative. Somehow, incentives will have to be created to retain health workers in the public sector without these incentives creating a further drain on state resources.

In Cuba, health system financing has been sustained by a state-controlled economy which, through control over health worker salaries, has managed to limit costs. But, in the face of increasing globalisation and marketisation of the Cuban economy, it will be remarkable if these factors fail to influence the available human resources for health and their interest in joining a profession which is not providing the financial returns found in other sectors. Reversing this trend will require ever increasing funding injections into wages and salaries which may prove unsustainable in a country with already stretched public resources.

Health systems frameworks which exclude consideration of economic context, risk presenting a very naive picture of the determinants of successful health system functioning. The introduction of mechanisms to collect health insurance contributions, to pool risk, to pay providers efficiently, and to provide necessary services all become redundant if there is not enough money to finance it.

The economic context influences policy feasibility and long-run sustainability. In all three case studies economic factors threaten long-run sustainability. Without consideration of how these factors will influence the functioning of a health system, health reforms – and in this case universal

coverage – risk becoming temporary attempts at creating equitable and accessible health access, instead of having the longevity to affect real change.

The political context affects the uptake of policies as well as their maintenance and appropriate management. The countries in these case studies depended on strong and sustained political will – from the state itself and sometimes also from civil society – to create the opportunity for reform, as well as the environment to sustain it; and to develop the systemic structures to support universal coverage.

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CONCLUSION

This paper set out to assess whether health systems frameworks capture all the determinants of how health systems function. Through a review of the conceptual literature and the exploration of the experiences of three countries which have implemented universal health coverage policies, this paper has established that consideration of the contextual factors – the political and economic factors that frame the health sector – is vital to adequately assess health systems and their ability to pursue reform initiative such as universal coverage.

Health systems are influenced significantly by their context. Health systems frameworks which do extend beyond description of the health system's articulating mechanisms – such as how financing is collected; from whom; how it is pooled and how providers are reimbursed; and which services are provided – neglect the critical influence of contextual factors which shape the health system.

This paper was not an attempt to generate an alternative health systems' framework. Its aim was rather to critically assess whether the current frameworks adequately describe the full range of characteristics of a health system relevant to the implementation and maintenance of a health reform policy – in this case, universal health coverage. What it has shown is that the context is as important as the elements of the health system itself – as a descriptive tool, and potentially more so as predictor of successful health reform systems.

Current health systems' frameworks miss opportunities by not capturing all the factors which influence the functioning of health systems. In consideration of the important influence of such contextual factors a systems' thinking approach will provide a more realistic assessment of the functioning of a health systems.

When utilising health systems' frameworks to assess development tools for improving health outcomes, such as universal health coverage, it is critical that such assessment takes cognisance of the broader political and economic environment. In this manner, implementation of health reforms to improve access to health for all becomes not just rhetoric but an achievable goal informed by a more reflective understanding of the world we live in.

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